New Public Management a re-packaging of extant techniques? Some archival evidence from an Irish semi-state power company

Abstract

Purpose
The objective of this paper is to explore, if like some other management initiatives, New Public Management may be a repackaging of already existent concepts. Emerging in the 1970s and 1980s as an innovative way to manage public sector elements, New Public Management has affected both the ownership and management of public sector companies, services, and utilities. Minimal research has been undertaken previously, using historic archival sources of public entities, to explore if elements of the concept originated prior to the 1970s.

Design/methodology/approach
This research draws on archival records from a publicly-owned electricity company, covering about three decades from 1946, during which a large investment project was undertaken by the company. We draw on key tenets of what is today called New Public Management, examining prior research to ascertain if similar elements were present in the case organisation.

Findings
When reviewing the progress of the investment project, many of the key elements of New Public Management emerged, even during the early part of the project.

Originality/value
There is little historical research on the origins of New Public Management, and the findings here suggest it may not be entirely new. While this does not at all invalidate existing research, it suggests New Public Management may be to an extent a repackaging of previously extant techniques. This opens up possibilities for future historic research in terms of how and why it was repackaged, and also what was/was not repackaged.

Keywords: New Public Management, energy sector, public services, management accounting,
Acknowledgements

We would like to acknowledge the invaluable assistance of Deirdre McParland and all the staff at the ESB Archives, Dublin.
Introduction

Innovation is a normal process within organisations (Solo, 1951), and as literature on the public sector reveals (Hyndman and Lapsley, 2016) innovations are not limited to private sector organisations. In recent years, considerable attention has been directed towards the increasing penetration of New Public Management (NPM) ideals into the public sector, and thus into our daily lives. Public sector bodies and services are increasingly subject to various NPM initiatives, and as a result being managed similarly to commercial firms (ibid). Consequently, public bodies and services are increasingly likened to, and subject to the pressures faced by commercial organisations.

Hood (1991) suggests NPM emerged as a set of doctrines in the late 1970s in both the UK and US, by combining new institutional economics and professional management in the public sector. This view purports that the history of NPM can only be traced from that decade until the present day. However, in the broader management accounting literature, there are several examples of “new” techniques and approaches emerging which upon some historical analysis have been shown to be more “repackaged” than new. For example, techniques similar to Activity-Based Costing have been linked to methods at General Electric in the 1960s (Johnson, 1992); Economic Value Added has been termed a “repackaged and refined residual income” (Drury and El-shishini, 2005); and, the Balanced Scorecard has been likened to the Tableau de Bord, something in existence a century or so before its predecessor (Bourguignon, Malleret & Nørreklit, 2004). Thus, in this paper, we explore the NPM phenomena over an extended period of time to ascertain if it could have emerged in a similar way. An extended timeframe has a clear advantage as noted by organisational change scholars such as Dawson (2003), who suggest that extending the temporal parameters when studying change can yield fruitful insights on how change happens, or does not. This study principally focuses on the financial actors and processes (mainly accountants, accounting and associated information and decision-making) within an organisation and its internal practices. By exploring actors, processes and practices, we hope to provide a historical overview of practices recognisable as early examples of what we now term NPM. From this, we can gain insight into whether the practices of NPM can be termed “new”
and “innovative”, as suggested when the term emerged in the 1970s¹.

To achieve the aim of the study, we employ a case study approach, targeting a single organisation, namely the Electricity Supply Board (ESB), which was founded in Ireland in 1927 and held a monopoly over both power supply and generation in Ireland until 2005. The research concentrates on reviewing the approaches taken during an extensive project, spanning from the mid-1940s to late 1970s: the electrification of rural Ireland. This project entailed attracting substantial financing from multiple sources, including central government and the open market, and involved accountants, and various accounting and management practices. As will be detailed later, the ESB was and still is what we will refer to as a semi-state company (see below). As a company, it has some particular nuances, such as a strong engineering foundation, which make it less of a public sector entity than might be typically associated with the term. Thus, it is useful to define upfront the meaning of some terms as - we use them in this paper. We draw on a broad definition of the public sector as set out by Broadbent and Guthrie, as follows:

the public sector is composed of those public organisations which provide utilities and services to the community and which have traditionally have been seen as essential to the fabric of our society. The provision of these public utilities and services has been characterised by the heavy involvement of central government in either (or both) policy making and funding (1992, p. 3).

As can be seen above, the definition refers to “public organisations”. This could be interpreted in several ways. It could imply ultimate public ownership of central or local government departments by the people as they elect an administration, or it could be through state ownership of bodies corporate. The latter type may be called state-owned enterprises, and these vary in type and form (MacCarthaigh, 2011). In an Irish context, state-owned enterprises are referred to as “semi-state” companies, and we will use this term in this paper. Such semi-state companies, while potentially subjected to the same corporate laws as private companies, typically have the distinction from private companies as being either fully or partially owned (through share ownership) by the state.

The remainder of this paper is structured as follows. The next section serves three purposes: 1) to

¹ Hiebl et al. (2015) adopted a similar approach to a study of the emergence of the term CFO.
provide some context regarding the ESB organisation and the Irish semi-state context, 2) to
detail literature on NPM, and 3) to explore prior historical studies in a similar vein. We then
outline our method and data sources, before reporting our findings from ESB source documents.
The paper closes with a discussion and commentary on the findings.

Literature and context

Background to Irish semi-state companies and the ESB

Since the formation of the Irish Free State in 1922 (Republic of Ireland from 1937), the State has
overseen a number of state-controlled entities responsible for managing various policy and
infrastructural objectives. On this issue, MacCarthaigh (2011, p. 215) explains that to “exercise
ownership rights over state-owned enterprises and their infrastructure has long been a matter of
considerable debate among scholars”. MacCarthaigh (2011) proposes that state-owned
enterprises be positioned according to two dimensions: public funding and distance from the core
executive. He also explains that different countries have adopted their unique approaches to the
ownership of state-owned enterprises and that these have evolved. A comprehensive review of
the ownership of Irish state-owned enterprises is beyond the scope of this paper. However, a
brief outline of commercial state-owned enterprises is useful for contextualising this study.

In 2016, there were about 30 commercial state-owned enterprises in Ireland\(^2\). MacCarthaigh
(2011, p. 221) notes that the number of state-owned enterprises grew after the foundation of the
Irish State in the 1920s, with privatisation during the 1990s having a strong influence. The
majority of Irish commercial state-owned enterprises (or semi-states as they are commonly
known) formed in the same way as private companies, and were required to comply with
company legislation of the time (see for example, Jollands and Quinn, 2017 who describe the
case of Irish Water). Typically, a Minister or Department would be the sole shareholder of a
company. Following independence in 1922, successive Irish governments formed and
maintained semi-states to deliver key infrastructure, such as transport, power and
telecommunications; although, some have now been privatised (e.g. Eircom, the state

One of these was the ESB, which we detail below, but there are many other examples. At the same time, some government/public services remained directly under the control of a government department, the more typical public sector format. For example, Coras Iompar Éireann\(^3\) (CIE) was formed as a separate legal entity under the Transport Act (1944) - a body corporate with perpetual succession as per Section 9 of the Act). This company provided public bus and rail services, and to the present day is a semi-state company, although it is now three separate legal entities. Bord Na Mona\(^4\) was formed under the Turf Development Act 1946, again as a body corporate with perpetual succession (Section 7 of the Act). However, an example of one public service which was not a body corporate until later was postal and telecommunications services in Ireland. It was not until the Postal and Telecommunications Services Act (1983) that control was taken away from the Department of Post and Telegraphs and given to two new companies, An Post and Bord Telecom Éireann.

Company law in Ireland had advanced considerably since the 1940s, and Section 9 of the 1983 Act notes “shall cause two limited companies conforming to the conditions laid down in this Act to be formed and registered under the Companies Acts”. Bord Telecom Éireann was publically floated as Eircom in 1999, whereas the postal services remain a semi-state company.

The ESB was formed in 1927, with the passing of the Electricity (Supply) Act in the same year. Section 2(2) of the Act designates the company, “a body corporate having perpetual succession and may sue and be sued under its said style and name.” It was the first semi-state body in Ireland (Delany, 2002, p.17). Sections 3 and 4 of the 1927 Act gave the Executive Council (the Cabinet of the Irish government in today’s terms) the authority to appoint a board of directors and a Chairperson. Interestingly, at this time, Ireland did not have its own body of company law; only in 1963 did the first Companies Act emerge\(^5\). In the case of the ESB, although the 1927 Act granted it “body corporate” status, the company had no share capital. The equity used to finance the ESB consisted of advances from the government as detailed in the Act. The ESB was founded (as per the 1927 Act) with a mandate to generate sufficient revenue to cover the costs of...

---

\(^3\) The literal translation is “Irish Transport System”.

\(^4\) The literal translation is “Turf Board”.

\(^5\) The United Kingdom’s laws were still on the Irish Statute books at this time.
generation and transmission⁶. After the Shannon Scheme⁷, which built Ireland’s first power station on the River Shannon, the ESB’s first large-scale project was the electrification⁸ of rural Ireland. Although first mentioned by the Government in May 1939 (Manning and McDowell 1984, p.123), it was not until after World War II that the project started to emerge. Work done during the war years resulted in a White Paper on rural electrification published in early 1944, authored by Thomas McLaughlin, who was the first Chairman of the ESB (Delany, 2002), but at this time was a Board member. Government approval was sought and granted, and planning began in 1945, with the first pole erected in November 1946 (Manning and McDowell 1984, p. 131). The scheme was formally entitled the Rural Electrification Scheme (RES) and was organised through 792 units (equating to Catholic Church parishes, a parish is the smallest administrative unit of the church in Ireland). As noted by Shiel (2003, p. 6); it was “the greatest social revolution in Ireland since the Land Reforms of the 1880s and 1890s”. The scheme took about 30 years to complete, cost €140 million (Shiel 2003, p. 7) and contributed an infrastructure to support economic development throughout Ireland to the present day. As noted by Manning and McDowell (1984, p. 181), as the Irish economy grew, and there was increasing rural electrification⁹, the problem for the ESB became its capacity to base load, rather than peak load¹⁰. More permanent generating capacity was required as the scheme rolled out, thereby creating a greater need for financing.

Some further commentary on Thomas McLaughlin is useful in setting the context of both the ESB and the RES. This commentary draws on the work of Delany (2002) unless otherwise stated. McLaughlin was an engineer who worked for the German firm Siemens-Schukert in the early 1920s. His work here gave him experience of powers plants in Germany, and he learned of electricity networks in other countries such as the United States, Sweden, Italy and France. His

---

⁶ As noted by Coombs and Edwards (1992), municipal authorities were typically mandated to break-even. This is not to state that the ESB was such an authority.
⁷ The Shannon Scheme saw the construction of the State’s first large scale hydro-electric plant, to supply both urban and rural customers. The main construction contractor was the German company Siemens, and the first power supplied was in October 1929 (O’Beirne and O’Connor, 2002).
⁸ Electrification is the process of bringing an electric power supply to a home or business.
⁹ Purchasing power increased 475% from 1945 to 1975 (Central Bank, 2011).
¹⁰ Base load refers to power stations that can consistently generate minimum demand. Peak load refers to maximum demand.
work at Siemens-Schukert was self-directed, and he pursued the design of hydro-electric scheme. He returned to Ireland in late 1923 and through political connections, presented his proposals to the government. From this, came both the formation of the ESB and the Shannon Scheme. As already noted, he was the first Chairman of the newly formed ESB. Delany (2002, p.19) notes how McLaughlin had a reputation for getting things done, but at the expense of cost control. As the ESB grew, control was needed, and McLaughlin resigned as Chairman in May 1931. He was appointed to the Board of the ESB in August 1932 and remained on the board until October 1957. As already noted, McLaughlin also wrote the proposal in 1944 to electrify rural Ireland. However, McLaughlin’s earlier work on the Shannon Scheme also included this notion (Shiel, 2003). He was thus a key figure in the electrification of Ireland and contributed to the management and direction of the organisation (see McLean and McGovern, 2017, later).

As mentioned above, the ESB was financed by advances from the government, at least initially. It was not until the 1970s that the company borrowed in a large-scale way from external sources. It is also worth noting that it was not until after the Electricity (Supply) (Amendment) Act, 2001, that the ESB issued shares. Upon issuance, 95% of the shares were held by the Minister for Finance, and 5% were made available to an employee share ownership scheme. According to the 2016 Annual Report\textsuperscript{11}, the Minister’s 95% share is allocated such that 85% is owned by the Minister for Finance, and the remaining 10% by the Minister for Communications, Energy and Natural Resources. As of the time of writing, these shares have never been offered to the public. Today, its activities extend beyond the Irish market, and its 2016 Annual Report revealed revenues of €3.2 billion and after tax profits of €186 million\textsuperscript{12}.

\textbf{NPM}

Studying the history of the political economy of any country reveals the processes of institutional change, and political and social changes that take place within it. The industries that comprise an economy are influenced by their context, in particular, political policies and/or macro incentives (Warren and Burns, forthcoming 2018) in the case of the power sector, elements of policy can have a significant impact on investment decisions. The providers of investment have long played

\textsuperscript{11} See https://www.esb.ie/who-we-are/investor-relations/annual-reports.

\textsuperscript{12} €2.1 billion of revenue was earned through sales of energy within Ireland.
a role in the economy; however, this role has changed over time, marked by the shift towards finance capitalism and an increasing investor role (Robinson, 2013). This increasing investor role, when combined with that of other private sector actors, triggered the emergence of concepts such as NPM. As suggested in our introduction, by studying such concepts over a prolonged time period we can understand it more fully. In this study, the focus is on a single organisation rather than the entire economy, highlighting the roles of financial actors and their work and outputs. Nevertheless, the case study organisation (the ESB) is inextricably linked to the Irish economy, and indeed was essential to Ireland’s economic development.

NPM, as noted by Hyndman and Lapsley (2016, p.385), “has been widely observed and debated since the seminal contribution of Hood’s observations (1991 and 1995)”, and they further note that it remains very much relevant to academic research on public sector organisations. We do not intend to engage in a debate here on NPM, instead we will provide a brief overview of some key scholarly works on NPM. A frequently cited study of NPM was that produced by Hood (1991) describing the components of NPM according to observations made during the 1980s. Hood (1991) suggested that NPM is a “marriage of two different streams of ideas” (1991, p. 5). These are New Institutional Economics and managerialism. New Institutional Economics seeks to explain why certain institutions emerged in the way they did (Williamson, 2000), and the non-existence or disappearance of others (Moll et al., 2006; North, 1991) through traditional economic concepts such as rational-optimisation (Moll et al., 2006) and transaction costs (Williamson, 1981, p. 1583). Institutional economics argues that institutions exist where benefits exceed the cost of creating and maintaining them. Managerialism, as per Hood, refers to “a set of administrative reform doctrines based on the ideas of professional management” (1991, p. 6). Whereas Klikauer refers to managerialism, noting “its ultimate goal is [to] mirror the way corporations are managed” (2013, p.6). In this sense, managerialism might feature organisational restructuring, additional incentives and more senior managers with greater power, and higher remuneration (Klikauer, 2013). However, Hood (1991) acknowledges that the balance between these two streams of ideas varies between countries, with the United Kingdom (UK) leaning more towards managerialism.
In the UK context, Hood locates the origins of NPM in the mid-1970s (see also Pollitt and Bouchaert, 2011). Hood (1991, 1995) suggests seven basic components of NPM, which are as depicted in Table 1. As noted by Hyndman and Lapsley (2016), NPM has been described by some as a relatively loose concept (for example, Christensen et al., 2007; Van Thiel et al., 2007). Hyndman and Lapsley (2016) concur that it is a loose concept, and that local context might demand specific approaches to policy, although the basic ideas that inform NPM remain the same. Lapsley (2008) examined NPM using a three dimensional approach: management process, mechanisms of change, and constraints. Using these dimensions, which encompass Hood’s (1991) components of NPM, he presents propositions on the future of NPM, which can be summarised as delivering an understanding of the issues and constraints faced. One of the issues addressed by Lapsley (2008) describes the embedded position of professionals contributing to the continuation of institutions within the public sector, and the role of institutions as social institutions, as well as accepted ways of doing things. One such professional grouping is accountants, who as discussed earlier, provide a focal point for this study; in particular, management accountants are likely to be relevant to the NPM sphere. However, Paulsson (2012) noted that few studies have focused on the role of the management accountant in the context of NPM. Paulsson’s study of a Swedish public body suggested decentralisation of management implies managers rely more on professional management accountants, the result of which is to “foster a business partner or coach role” (2012, p.392) for accountants. He also explains that management accountants continue to perform traditional tasks such as budgeting, forecasting and reporting of financial data, while supporting the introduction of commercial concepts (e.g. accruals accounting) to public bodies. Earlier work by Järvinen (2009) also highlighted how management accountants employed at hospitals identified themselves as comparative to private sector management accountants, supporting the notion of embedded professionals set out by Lapsley (2008).
Table 1 – summary of components of NPM, drawing on Hood (1991, 1995) and Hyndman and Lapsley (2016).

Some more recent literature has provided useful reflections on NPM over the past two to three decades. We briefly summarise it here, chronologically for convenience. Lapsley noted, “NPM is often a cruel disappointment for governments” (2009, p.1). In short, Lapsley (2009) attributes the disappointing outcomes to a number of factors including the use of management consultants, unsuccessful use of technologies and a reliance on performance measures which are not as readily usable as market-based measures. Anderson and Tengbland (2009) found that while in some cases NPM worked at the national level, when introduced at a local level within the Swedish Police, there was far more resistance due to uncertainty towards the goals and measurement processes. Silva and Ferrerira (2010) has similar findings to Anderson and Tengbland, but from within the Health Care Service. They found that at the national level of the sector there was less resistance than at the level of Public Primary Health Care because at this level the controls were disjointed and inconsistent with local practices. Pollitt and Bouchaert (2011) make some useful observations in their text on public management reform. For example, they note that NPM “was perceived as having cultural, ethical and political features which did not ‘fit’ certain countries (2011, p.10) and that it tended to be the dominant approach in Anglo-Saxon countries (ibid, p.12). They also note that it is quite difficult to determine if the NPM approach can be said to be successful or not (ibid, pp.15-18). Hood and Dixon (2013)13 explore the success of NPM in terms of whether or not costs were reduced. Their study focused on the UK central government, and explored three cost types over a thirty-year period from 1980 to

13 See also Hood and Dixon (2015).
2010. Their conclusions are mixed, but overall provide no overwhelming evidence that NPM delivered large-scale cost reductions. Lapslay and Ríos (2015) found further problems with NPM in that even politicians were being resistant to transparency, especially within the budgeting process. Similar to their previous paper, Hood and Dixon (2016) explore three decades of NPM in UK and explore how reducing costs may have affected the fairness and consistency of administrative practices. Their analysis suggests what they call a “lose-lose situation” (ibid, p.424). That is, of the time period of the study, real costs increased but fairness and consistency seemed to suffer – based on an increasing level of complaints on government services.

In summary, from this brief review, we can see that NPM is well understood and researched as a concept, if in practice it has not always yielded results. The literature also suggests that NPM emerged as a concept sometime in the 1970s. It has also emerged in this brief review that accountants/accounting can play a role in NPM, and that NPM is relevant within the public sector context (i.e. it is not limited to central government). This provides support for our utilisation of NPM concepts in this study of the ESB, which we will argue is a public sector organisation later in the paper.

Prior historic studies

We now turn to a brief review of historic business and accounting literature covering the concepts of NPM in the context of the electricity/power sector. Our analysis identified relatively sparse literature when viewing NPM from a historic perspective. The historic literature on NPM per se appears to be non-existent, and this is predictable in view of its novelty as a research area. Nevertheless, there is abundant extant literature exploring aspects of what we now term NPM, indeed, it is too voluminous to detail here. For example, the accounting history literature includes multiple examples of studies of performance standards and performance measures in hospitals (see for example, Gebreiter, 2015; Robson, 2007). Similarly, two leading management history journals, *Journal of Management History* and *Management and Organisational History* provide data regarding management styles and resource usage in various contexts, over different time periods, and in different firms. However, a search of these journals reveals no articles using the term NPM, despite some studies pertaining to public management (e.g. DuGay, 2009; Rennison,
2013). There is some literature detailing the role of accounting and related accountability in local
government, where accountability is linked to the notion that NPM can be managed as a
corporation (Kilkauer, 2013). Sargiacomo and Gomes (2011) offered an interesting review of
literature across 14 accounting and business journals (including the three main accounting
history journals, excluding research related to hospitals). In this review, they identified 33 papers
and noted that with minor exceptions, the focus of the research was on technical aspects of
accounting within local government. They thus called for additional studies to explore
accounting as a social practice in local government and municipal settings. Again, none of these
studies, as noted by Sargiacomo and Gomes (2011), appear to be framed within an NPM context,
although some, such as those by Monsen (see Monsen 2002 and 2006) could easily have been.

The business history literature also includes studies of the electricity/power sector, many
recounting diverse aspects of regulation and other forms of state involvement. For example,
Clifton et al. (2011) suggest an increasing effect from regulation and state participation in this
sector. They suggest three waves of regulation, the first being in the late nineteenth century when
infrastructure was initially constructed; the second spanning from that time to the 1970s,
indicating a growing state role in determining infrastructure and management practices; the third
spanning from the 1970s onwards, witnessing an increased role for market forces, and the
emergence of some of today’s major energy players from former public organisations (see
Clifton et al., 2007). In support of Clifton et al.’s (2011) assertions, Eriksson (2015) reports how
the emergence of a national electric grid in Sweden was associated with increased state
involvement, with eventual state control achieved in 1946, the ESB, in contrast, having been a
state monopoly from 1927 (see earlier). The main factors informing state control in the Swedish
case, as described by Eriksson (2015), were linked to strategic agricultural and economic
development. Focusing more on investment in power companies, Lanciotti (2008) details the role
of foreign investment in Argentinian electrical utilities from 1890 to 1960. Her study suggests
that multiple factors affected the economic outcomes of investments, such as the timing of the
investment, lack of regulation in the early years, and how foreign investors approached the
operation and management of their investment. Her findings suggest electricity companies in
certain areas were comparatively less influenced by state involvement than others, particularly in
terms of capital investment. Saes (2013) similarly noted the importance of foreign investment in the modernisation of Brazil’s electricity companies. To summarise, we affirm that the two salient issues raised concern regulation (through direct or indirect state involvement) and the requirement to invest in the sector.

Additionally, the accounting history literature includes several studies relating to the power/electricity sector. However, a review of the three main accounting history journals, Accounting History, Accounting History Review and The Accounting Historians Journal reveals very little extant literature about the power/electricity sector. Typically, the journals detail the role of accounting, and in particular accounting and regulation practices effecting utilities, including the electricity sector. Baker and Quéré (2015), for example, note how US power companies engaged in somewhat creative practices, leading to accounting scandals in the late 1920s and early 1930s. Their earlier work (see Baker and Quéré, 2014) highlights poor corporate governance practices at these same companies, which might have further contributed to these accounting scandals. Also in the regulatory vein, Parker (1990) briefly refers to regulation at electricity companies, citing the regulation of their (and other utility companies) financial reporting practices in the latter part of the 19th century. These studies, similar to those reported on in the business history literature noted above, focus more on the regulatory aspects of electricity firms. More applicable to accounting statements, Fernández-Revuelta et al. (2002) explored the accounts of a Spanish electric utility during the Spanish Civil War, noting how the narrative within the accounts not only reflected, but also formed part of their political struggle. In a related sector, McInnes (2002) reported on how accounting costs as conveyed in financial statements produced by British Gas were used by various actors. Finally, although in a contemporary accounting journal, McLean and McGovern (2017) provide some useful historical context of the emergence of strategic costing information at the Newcastle Upon Tyne Electric Supply Company from 1889 to 1914. Although their study is of a private company, they noted the adoption of formal processes around strategic costing information was due to three factors 1) the complexity and novelty of an emerging power generation sector; 2) regulation of the sector; and 3) the drive of key individuals.

In addition, a study by Coombs and Edwards (1992), drawn from the public management
To summarise, historical studies on the power/electricity sector, in general, are scarce. Even fewer explore aspects of accounting and those that do, tend not to utilise archival records beyond the financial statements of electricity companies. Having given context and background to the ESB and outlined some relevant literature, we now outline the data sources and methods employed in this study.

**Sources and method**

We have already noted above that while ESB is in a legal sense a separate entity, its ownership structure positions it within the public sector realm, as does its role providing a public service. To elaborate, above we have briefly detailed the formation of ESB, CIE and *Bord Na Mona* (and later the post and telecommunications companies) as companies. Exploring the relevant Acts which formed these three companies¹⁴ some common themes emerge. All three were 100% owned by the government, reported directly to a government Minister formally in an Annual report, were funded substantially (at least initially and to the 1970s) by central government funding and had their annual accounts laid before the houses of parliament for approval and

¹⁴ We focus on these three companies as they were all formed by the time our analysis period begins i.e. the late 1940s.
discussion. Drawing on Broadbent and Guthrie’s’ (1992) definition of the public sector, the ESB does provide a service necessary to the fabric of society (power) and there was extensive involvement in funding (see later) by the central government. However, it was also constituted as a semi-state company, making it in a legal sense similar to a private company. However, for the time of our study, it was as Broadbent and Guthrie note of an earlier conception of the public sector, “one of those monopolies which supply services and utilities seen as part of the infrastructure of society, and which may also charge their customers” (1992, p.7). Taking our comments thus far in this section, it seems quite reasonable to deem the ESB a public sector organisation for the purposes of this paper – it was funded by the government, it was 100% owned by the government and it provides a necessary service to society. This, in turn, means it is potentially susceptible to concepts and features aligned with NPM.

The primary data source consulted for this study is the corporate archives of the ESB held in Dublin, although some material is available publically via an online portal. Data was collected mainly through visits to the archive, and the researchers took notes of relevant items. In some cases, we used digital photography for later off-site analysis of documents. We also accessed the Irish Statue Book (http://www.irishstatutebook.ie/) to consult legislation relevant to the ESB.

The time frame covered by the study is slightly over 30 years: from 1946 to 1977, covering the entire period of the RES. Throughout the implementation of the RES, an infrastructure permitting the ESB to sell power to consumers was expanded beyond the urban centres in Ireland. From the archives, we were able to access the annual reports of the company for the entire research period and beyond. The annual reports produced naturally include financial statements and a Chairman’s Statement, but also abound with technical and project progress information about the RES. Each annual report averages approximately 70 pages in length, and as noted above, the RES involved 792 parishes. We were able to access all 792 files for the entire project period. Analysing such a vast amount of data was beyond our scope. Thus, after an initial review of a sample of the files was performed revealing a similar format in each, we were confident that a sample of the files would provide sufficient evidence indicating the presence of tenets of NPM. Thus, we selected two counties per province\(^{15}\), providing a total of eight files.

\(^{15}\) Ireland has four provinces, which are groupings of counties. There origins are historic and today they serve no
Each file averages 100-200 pages, and we also reviewed copies of the Rural Electrification Office\(^\text{16}\) (REO) magazine, \textit{REO News}, revealing progress and interesting news about the RES. Additionally, we were granted access to the only surviving files produced by the Chief Accountant during the period. These files spanned the early years of the RES, from 1946 to 1954. We also consulted some secondary sources detailing the history of the ESB and the RES. A book entitled \textit{The Quiet Revolution - the electrification of rural Ireland} provided a useful and extensive history, affording insight into the many aspects of the RES, in the forms of both context and data. In addition, a text detailing the history of the ESB, entitled \textit{Electricity Supply in Ireland - the history of the ESB} was drawn upon. This latter text was written after 1977 to mark the organisation’s first 50 years. Finally, we also consulted relevant legislation on the founding of the ESB and subsequent changes to the organisation. Utilising the mentioned data sources, we adopted the following method. We examined the documents and reports manually for signs of the seven key components of NPM as set out in Table 1, noting examples as we analysed. We looked for repetitive practices, as such practices are more routinised and provide evidence that the components of NPM (per Table 1) are more embedded within the organisation.

Findings

Below we detail the findings resulting from our analysis of the practices surrounding the RES over the time period noted previously. We took each of the NPM items presented in Table 1, and related them to the archival data. We then illustrate our findings using representative examples. We should note the archives include many more examples than are described here.

\textbf{Unbundling the public sector and offering more competitive provision}

We considered the first two items of Table 1 together, purely for presentation reasons. As already stated, the ESB was formed as a corporate body in 1927, and is today regarded as a semi-state company. Although, from its inception the ESB Board reported directly to the Minister for Industry and Commerce\(^\text{17}\), there is no evidence of government interference in the day-to-day operations of the company. For example, Section 59 of the 1927 Act that founded the ESB, gave

\(^{16}\) This was the organisational unit responsible for the RES.

\(^{17}\) The title of this Ministry changed over the years, but the line of reporting continued.
it full authority to fix rates for electricity charges and the Act also makes several mentions of charges being designed on the basis of ‘sufficient to cover cost’. This certainly supports Hood’s (1991) suggestion that units within the public sector work on an arms-length basis. The RES itself was certainly funded to a large extent by the government, but this funding was similarly inputted at arms-length and was fully repayable. An initial £5 million was granted by the Electricity (Supply) (Amendment) Act 1945, which according to Shiel (2003) was fully repayable by the ESB over a period of 50 years. This amount and subsequent additional amounts allocated for the RES were described in the annual reports of the ESB as a sinking fund, for which repayments were made annually (see also Coombs and Edwards, 1992). The initial amount was “one quarter of the total estimated cost, thereby ensuring that the progress of the scheme came under Dáil\textsuperscript{18} scrutiny at any early date” (Shiel, 2003, p. 35). Thus, the government typically evaluated the ESB’s progress before advancing further funds. In practice, this process appears to have been intended for legitimisation only, as no evidence emerged of funds not being advanced; however, as we reveal later, the Minister closely observed the progress of the RES. Finally, it can be argued that the organisation of the RES itself can be classified as unbundled in NPM terms. Shiel (2003, pp. 57 - 60) summarises the organisation of the Rural Electrification Office effectively:

The first step was the setting up of the Rural Electrification Office (REO), the specific ESB management organisation charged with the carrying out of the scheme. In charge was W. F. Roe who exercised broad control over the whole activity. He had been given by the Board a very high level of authority and discretion and delegated much of this downwards to the District and Area Engineers. His deputy and assistant was P. J. Dowling.

The REO, though it was a separate and practically autonomous entity, was not completely isolated from other ESB Departments. If experience or expertise pertinent to the problems of the rural scheme were available in other Departments, they were freely sought and freely given. In this way, the total resources of the ESB organisation were marshalled for the benefit of the scheme.

\textsuperscript{18} This refers to Dáil Éireann, the lower house of parliament in Ireland.
The three divisions referred to above are the Materials, Technical, and Development divisions, and each had its own manager. The above reveals that the REO was considered a separate organisational unit, and as revealed later, as time progressed, performance was reported separately also. Shiel (2003, p. 60) also noted the presence of a Rural Accounts function:

Rural Accounts were integrated with the general Accounts organisation of the ESB, under the supervision of Divisional Accountant Neil O’Donoghue who, while seconded whole-time to the Rural Electrification Office, still reported to the Chief Accountant. The particular and often unique circumstances of rural electrification frequently required special accounting consideration and O’Donoghue ensured that harmonisation was maintained with the established system while still allowing the new organisation to develop in a flexible and dynamic manner.

On the subject of enhancing the competitiveness of service provision, during the period from which the study data was collected, no evidence could be found of this component of NPM. This is explained by the fact that the Irish electricity market was not open to competition, as deregulation did not take place until 2005, with all sectors fully deregulated by April 2011\(^\text{19}\).

**Private sector management styles**

The constituents of the private sector management style have been defined in research prepared by management scholars. Here, we offer some examples from the RES, based on the archival records (some of which are detailed more below). First, the management of the ESB and the RES during the majority of the timeframe of the RES can best be described as derived from a professional engineering culture. Sound commercial-type decisions prevailed, although the 1927 Electricity Supply Act gave the ESB and its officers (e.g. board of directors) relatively wide-ranging powers. Exemplifying the private sector management style (detailed later), investment decisions were grounded in economic reality, and a minimum return on investment was usually sought. The ESB also had full capacity to recruit staff as it saw fit. For example, staff needed to complete the RES, as Shiel noted “from forty to sixty general workmen, in some cases up to one hundred, were recruited locally for the duration of the work in each area” (2003, p. 61). Second,

\[\text{http://www.cer.ie/customer-care/electricity}\]
throughout the early part of the RES, and into the later 1950s (under a Planned Post-Development scheme), education, demonstration, and advertising were used to enrol additional customers. The benefits of supplying electricity to rural farms was a particular focus, with many advertisements mentioning the affordances of electric water pumps (see Figure 1) and milking machines. The RES also involved many local canvassers and demonstrators, as can be seen in the following extract from a demonstrator’s guide from the 1950s, which conveys a clear sense of commercial intent:

Our main reason for holding demonstrations - public as well as private - is to conduce to the greater consumption of electricity. It is expected that by publicly and privately proving the advantage of electricity in various fields - mainly in that of Cooking perhaps - increased use and consumption of electricity will naturally follow. Demonstrations are therefore an important avenue of SALES EFFORT.

(Source: http://esbarchives.ie/2016/02/11/energising-demonstrations/, capitalisation in original)

[insert figure 1 here]

**Figure 1** Advert for electricity use in water pumping from c.1950s. (Source: http://esbarchives.ie/2016/02/11/energising-demonstrations/, Copyright of ESB Archives)

*Discipline and frugality in resource use*

Annual reports during the analysis period revealed that the ESB led to sizeable generation costs, with many fuel costs being beyond its control, especially in the case of coal, oil and gas power stations. In the 1977/78 Annual Report, for example, fuel costs reportedly accounted for about 40% of all expenditure. While it did not hedge fuel costs during the study timeframe, the Board did, for example, record and report the cost of each Megawatt (MW) of electricity produced at each power station, and a generation cost report is provided in each Annual Report. From this, despite having no direct evidence at the power plant level, we can derive that the Board was interested in how efficient the power stations were in terms of the cost of generation.
Examination of the sample areas selected from the RES revealed that materials were accounted for in a way similar to that employed when conducting standard costing. Each area was mapped from an Ordnance Survey map to determine where the transmission cables would be best placed. From this and the number of dwellings canvassed, an estimation of the materials needed was produced and a corresponding requisition made. The standard materials cost comprised part of the capital expenditure approval for an area, as explained in more detail later. Unused materials were documented and returned and further requisitions over the standard amount required the approval of the REO office. While standards can be slack, and we have no evidence of how they were derived, the presence of a control system of this type suggests the ESB wished to control material costs based on appropriate inventory mechanisms.

In terms of labour, the ESB’s labour relations record during the period of the RES is termed reasonable according to the Annual Reports. A tribunal was established in 1942 to specifically address this issue in the ESB; as it was the sole producer of electricity and power outages due to industrial unrest would be unwelcome. The 1961 Annual Report notes that an all-out strike by certain grades would have put the power supply at risk, had it not been for the plant engineers. Throughout the latter half of the 1960s the data show repeated reference to issues linked to industrial relations, with the ESB Board calling for more effective industrial relations machinery, for example:

The Board hopes that a better atmosphere and machinery for settling disputes may evolve from the new Department of Labour and from the proposed amendments to the Industrial Relations and Trade Unions Acts. So far as the electricity supply industry is concerned it is the earnest wish of the Board to achieve by agreement a situation in which this most essential service will be freed from the threat of interruption by strike action. (Annual Report, 1965)

Reference was made in last year's Report to negotiations in progress at the Department of Labour on a comprehensive agreement to bring about a situation in which electricity supplies would be freed from the threat of interruption by strike action, through the incorporation of a ‘no industrial action’ clause. (Annual Report, 1967)
Visible hands-on top management

Hood (1991, p.4) uses the term “free to manage” to describe professional management in the public sector, whereby discretionary control was granted to named persons. From the outset, in 1927, the ESB board were named in the company’s publicly available annual report; it was (and is) subject to the same financial reporting and corporate governance regulations as any other Irish company. Thus, we cannot consider it to be a government department, which appears to have been Hood’s main intention. However, we have earlier presented the ESB to be a public sector organisation. From its inception, the archival data suggests ESB managers were free to manage. As an example, the following quote from the 1976 Annual Report suggests ESB managers were free to develop their own management style:

When the ESB was founded there was little native experience of large-scale electricity supply, or of administration outside central and local government. The Board responded to the need by a policy of developing Irish expertise within the organisation to the maximum extent possible. This development has been achieved to a remarkable degree which is unique amongst electricity utilities throughout the world.

As is illustrated below, the ESB put in place performance measures and controls within the RES project, to manage resources based on their annual reports (see above). We found no evidence of any political interference here. As discussed below, the RES project also named Engineers and Area Managers found to perform well. We did find evidence of some interactions with the Government, but none of these seemed to interfere with the daily management of the ESB\(^\text{20}\). In the area files examined for the RES, we found many examples of local politicians making representations by letter to the REO, intending for example, to increase voltage or install a supply to a particular dwelling or business. All these letters were replied to in the same manner, with the query being referred to a responsible area engineer, and an explanation given to explain the reasons for a particular problem.

Measurable standards and measurement of performance

\(^{20}\) This is in contrast to Ireland’s nearest neighbour, the UK, where government intervention in the running of power companies was quite high - see Cochrane and Schaefer,1990.
On this tenet of NPM, Hood (1991) referred to defined goals and targets and actual performance measures. As noted, the ESB was set up with the intention of at least covering its cost (typical of such authorities as suggested by Coombs and Edwards, 1992). For the most part, it did so during the timeframe of this study; a cumulative loss of £3.5 million applies over the period, but this would be a £4m profit if the results for 1973-75 were removed (the years of the 1970s oil crisis). However, profit is only one measurement of performance, and our analysis of the files sampled reveals much more interesting standards and performance measures to consider.

As explained in the methods section, we selected a sample of eight parishes from the 792 areas comprising the data set. The details reported here apply to all eight of these areas. McLaughlin’s (1944) report on Rural Electrification suggests a “realistic” return of 9.7%, which is lower than the normal target of 12% reported in urban areas (Shiel, 2003). The same report suggests a minimum return of 5.7%. This return figure was calculated as a Fixed Charge Revenue/Capital cost. This fixed charge revenue figure depends on initial uptake by rural consumers, and canvassers played a large role here. Each area file that we examined contained detailed reports about the canvass results, with higher results generally yielding a higher return. For all eight areas, we determined the process was as follows: canvass the area, budget for materials and other costs (including a 20-22% overhead charge), obtain capital expenditure approval, complete the work, and finally submit a capital completion form, listing actual details of the cost and materials. Two illustrative examples follow. First, in the area of Dunshaughlin in County Meath (close to Dublin), the canvass results showed an 8.38% return (dated 10/11/1949) with an estimated capital cost of £13,756. Later, the actual spend was recorded as £9,450. Second, for the area of Glenhest in County Mayo (west of Ireland) the canvass results showed a 3.52% return (dated 23/1/1957). The file notes that this area was “uneconomic rural”, stating a capital cost of £24,390 to service 148 customers. This second area was completed, however, as the inherent social objective of the RES required provision to all “uneconomic areas”. Crucially, from our perspective, is that there was a return set; i.e. a projected return for each area was calculated, and then compared with the budget/actual capital costs.

21 As noted by Shiel (2003, pp. 272-273), the minimum return varied during the lifespan of the RES. The lowest was 4% in 1958.
**Emphasis on output controls**

As Hood (1991) notes, output controls imply a connection between measured performance and resource allocation and rewards. On the latter point of rewards, we cannot establish whether what we now describe was or was not used as a form of pay and reward, as relevant records are not available in the archival material. Nevertheless, on an initial examination of the *REO News*, it becomes very clear that the performance of the area teams during the RES was not only measured, but became a motivational and control tool. Notably, *REO News* was published monthly and sent to each area engineer (as mentioned earlier, there were 792 areas). Thus, the first volume of the *REO News* from September 1948 contained a detailed chart listing total costs incurred in selected areas, with each data point depicted relating to an overall average cost. Each data point was labelled with a capital letter, although the actual area was not disclosed. After exploring *REO News*, we noted requests to stop anonymising the data, apparently arising from the competitive drive from different areas to outdo each other. Within several months of these requests, a chart was published in full, and as time passed, additional information was added, detailing the performance of each area, and publication continued for many years. For example, Figure 2 shows a report printed in the *REO News* from September 1953, revealing overall progress for the month in terms of poles erected, kilometres of line, and number of customers acquired. To demonstrate this, Figure 3, from the *REO News* for April 1959 details costs by area. The note under the table of costs in Figure 3 is interesting, as it refers to crews who were previously reported, reinforcing the competitive nature of the reports among area engineers and their crews.

![Figure 2](image-url)

**Figure 2** Progress in areas (Source: *REO News*, September 1953, Copyright of ESB Archives)

![Figure 3](image-url)

**Figure 3** Costs per area. (Source: *REO News* April 1959, Copyright of ESB Archives)

Figures 2 and 3 are taken from the company magazine and so cannot be considered direct evidence *per se* of a system of output-based controls. However, *REO News* was a dissemination
tool and there must have been underlying systems in place within the REO to collect and collate data. Additionally, Heller (2003) argues that the roles of company magazines are both operational and strategic. Hence, although we have no separate archival evidence aside from that of *REO News*, it is reasonable to speculate that data similar to that revealed in Figures 2 and 3 could fulfil either operational or strategic purposes, as it emphasises results (as opposed to procedures, see Hood, 1991).

A secondary results based control emerged in each of the area files (see the previous section), proving that the capital costs for each area were planned, although the actual costs reported once the project was complete included a notable variance from the projections. Such figures were no doubt collated for the project as a whole to monitor overall spending, although we have no direct evidence of this. A third result focused on the separate reporting of revenues and costs for the RES in the annual reports of the ESB. In the Chief Accountant’s files, we note a meeting on July 28th, 1950, when ESB and government officials met to discuss separating rural and urban accounts. An official from the Department of Finance stated, “the necessity for the Government to receive and to publish accounts showing the financial results of Rural Electrification” and “could not accept that the problem is not capable of a solution”. He later added, “the Board should be able to select fair principles on which to apportion individual charges”, and “the Department of Finance would expect that the Accounts for the year 1950/51 would be supplemented by an apportionment as between rural and non-rural business”. While this request appears to have been driven by the government, possibly to monitor capital investment, it was something the ESB quickly complied with delivering an output control, allowing for a profit or deficit of the scheme to be ascertained on an annual basis. On November 17th, 1950, the ESB Board chose to comply and refer to the “Chief Accountant and Mr Dowling\(^{22}\) to draw up a Profit & Loss account which would be suitable for submission to the Government”. Notes produced by the Chief Accountant in the intervening period show how costs (non-generation costs) were allocated to rural and non-rural purposes for example, based on estimated kilowatt demand, revenue earned and number of customers. Following the Board’s decision, an Electricity Revenue Account showing revenues, costs of generation, transmission costs and general

\(^{22}\) Deputy Manager of the REO.
administration costs were reported separately for rural and non-rural areas from the 1951/1952 Annual Report to 1971.

Concluding comments

The above review of archival records leads us to conclude that the ESB was a well-run state-owned entity during the RES period. Indeed, Manning and McDowell (1984) state that the ESB gained external recognition for its good management in a quote made in the context of a $14.5 million loan in 1969. The competency captured in the quotation (which was borne out by our findings) gave rise to the formation of ESB International in 1975, which eventually reported revenues separately from 1979 onwards (£0.5m in 1979, rising to £3.1m in 1980, to £80m for 2015):

The first contact between the ESB and the World Bank was the beginning of an association which has since continued. The bank apparently was so impressed with the general competence of the ESB’s technical and managerial staffs that it took the initiative in putting the name of the ESB forward for a consultancy role for a project the bank was financing in the Philippines. (Manning and McDowell, 1984, p.194)

Our evaluation of the data further revealed many of the components of what we today term NPM were present from the early days of the RES, in the 1940s and 1950s, and it is reasonable to suggest these practices contributed to the managerial competence referred to in the above quotation. Hood suggested that NPM’s impact has been “less on controlling departments than on front-line delivery units” (1991, p.8), and this would also seem to apply to the ESB. However, we should note that Hood’s (1991) work generally refers more to government departments, although as argued earlier, the ESB is a public sector organisation. It is particularly interesting, based on our analysis of the ESB, and the RES project, that many of the features of NPM as per Table 1 present in the late 1940s. Output controls and performance measurements, in particular, show strong NPM leanings, and the only feature of NPM we cannot identify is the competitive provision of services, which we can attribute to the size of the Irish electricity market and the lack of a competitive market. Thus, from the historic analysis reported in this paper, which albeit offers evidence from a single case, we can tentatively propose that NPM has some roots pre-
dating the time frame suggested by the extant literature. Hood (1991) in particular suggests NPM was a marriage of institutional ideas and managerialism. While we do not question this assertion, it is apparent both institutions and professions (managerialism being professionalised management) typically evolve over time. For example, writers such as Loft (1986) and Boyns and Edwards (2013) have recounted how the management accounting profession evolved over several decades, and similarly contemporary research into institutionalised practices suggests new practices build on existing practices (e.g. Burns and Scapens, 2000; and Quinn, 2011; 2014). Put another way, over time practices/techniques, are repackaged but are often similar to or contain elements of earlier practices/techniques. Our work here suggests this may also be the case for NPM.

While we acknowledge that the development of NPM has been widely researched since the 1990s, we discovered little historical research into the concept. Dawson (2003, p. 122) suggests shorter case studies addressing processes of organisational change (such as NPM) cannot capture the “complex and muddied waters of organisational life”. Nevertheless, historical studies can contribute in some way to our understanding, affording us insights into the concepts utilised in contemporary research settings (see for example, Quinn, 2014), and Richardson and Kilfoyle, 2016 for historical studies of phenomena over extended timeframes). As revealed, we found evidence that six of the seven tenets of NPM (per Table 1) were present at the ESB. The single missing tenet (i.e. competitive provision) did not apply to this particular case study, as during the RES no legislative framework permitting competition existed. It is also interesting that the presence of the tenets of NPM at the ESB emerged organically and/or were internally driven (possibly by managers such as Thomas McLaughlin), with little evidence of top-down initiatives from central government.

In common with other archival research, this study has some limitations. First, we refer to just one case, and thus our findings may not be generalisable. In addition, as various countries pursue differing economic and energy policies, the methods by which the ESB operated might not be replicated outside of Ireland. However, as noted by many NPM researchers (see Hyndman and Lapsley, 2016, for a useful summary), although NPM can take differing forms in differing settings, but the essential tenets remain analogous (Hood, 1991). Second, the study of documents
and other artefacts cannot reveal the inner thoughts and motivations of involved actors; however, we hope we have presented sufficient evidence over a broad enough timeframe to counteract this limitation. Third, as noted earlier, the ESB was not a government department, but a public sector entity (even today), in view of its ownership. Thus, it could be argued that our case is not typical of the type of organisational units envisaged under an NPM umbrella, certainly in nascent NPM literature. We would argue strongly, however, that the fact that the ESB had its ownership vested in the state brings it within the realm of NPM research, and most certainly under the domain of public sector research.

In terms of future research, it would be interesting to explore further the extent to which our claim that NPM is a repackaging holds. We have made our suggestions based on this single historic case study, utilising a lens of what we now accept as the key elements of NPM in a similar way to the contribution made by Hiebl et al. (2015) when discussing the emergence of the term CFO. Thus, we suggest additional historic studies be conducted to either support or challenge our findings, including extending the context beyond Ireland, which is certainly not unique in having semi-state companies. We would of course also recommend studies beyond the energy sector, and some interesting sectors to consider in this instance would be transport and telecommunications. Any such subsequent research could also explore how NPM was repackaged in different contexts. Finally, this paper has taken an approach more common to accounting and business history journals, by drawing on archival evidence. Recent work by Hood and Dixon (2016) refers to three decades of public management reform - at least in the UK. Typically, a thirty-year time period implies government records are made available via public or national archives. It could thus be useful for accounting/business history and public sector management scholars to join forces and with their combined perspectives, study in-depth instances of NPM over time in government departments or semi-state companies as here.
References


<table>
<thead>
<tr>
<th>DISTRICT</th>
<th>AREA</th>
<th>COUNTY</th>
<th>POLES</th>
<th>EN. OF LI.</th>
<th>CONSUMERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADARE</td>
<td>Limerick</td>
<td></td>
<td>710</td>
<td>50</td>
<td>40</td>
</tr>
<tr>
<td>ARDINISH</td>
<td>Tipperary</td>
<td></td>
<td>501</td>
<td>88</td>
<td>66</td>
</tr>
<tr>
<td>ANNAMAR</td>
<td>Tipperary</td>
<td></td>
<td>1,440</td>
<td>118</td>
<td>53</td>
</tr>
<tr>
<td>KILDARE</td>
<td>Kildare</td>
<td></td>
<td>1,324</td>
<td>114</td>
<td>300</td>
</tr>
<tr>
<td>GLOUCES</td>
<td>Tipperary</td>
<td></td>
<td>406</td>
<td>39</td>
<td>-</td>
</tr>
<tr>
<td>BALLYROSS</td>
<td>Kilkenny</td>
<td>509</td>
<td>24</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>BALLYBUN</td>
<td>Sligo/Koscow</td>
<td>418</td>
<td>34</td>
<td>114</td>
<td>-</td>
</tr>
<tr>
<td>ANNAGHILL</td>
<td>Kerry</td>
<td></td>
<td>478</td>
<td>24</td>
<td>-</td>
</tr>
<tr>
<td>WATERFORD</td>
<td>Wexford</td>
<td></td>
<td>715</td>
<td>66</td>
<td>236</td>
</tr>
<tr>
<td>MALLOW</td>
<td>Tipperary</td>
<td></td>
<td>280</td>
<td>6</td>
<td>-</td>
</tr>
<tr>
<td>CORK</td>
<td>Cork</td>
<td></td>
<td>732</td>
<td>66</td>
<td>96</td>
</tr>
<tr>
<td>DUNDEE</td>
<td>Monaghan</td>
<td></td>
<td>1,182</td>
<td>99</td>
<td>252</td>
</tr>
<tr>
<td>DUBLIN</td>
<td>Dublin</td>
<td></td>
<td>260</td>
<td>6</td>
<td>-</td>
</tr>
<tr>
<td>DUBLIN</td>
<td>Meath</td>
<td></td>
<td>836</td>
<td>66</td>
<td>150</td>
</tr>
<tr>
<td>DUNDALK</td>
<td>Meath</td>
<td></td>
<td>850</td>
<td>68</td>
<td>-</td>
</tr>
<tr>
<td>GALWAY</td>
<td>Galway</td>
<td></td>
<td>23</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>BALLYOOLEY</td>
<td>Galway</td>
<td>1,320</td>
<td>106</td>
<td>301</td>
<td>-</td>
</tr>
<tr>
<td>GALWAY</td>
<td>Galway</td>
<td></td>
<td>879</td>
<td>74</td>
<td>200</td>
</tr>
<tr>
<td>GALLAGHER</td>
<td>Galway</td>
<td>786</td>
<td>67</td>
<td>149</td>
<td>-</td>
</tr>
<tr>
<td>BALLYCUN</td>
<td>Galway</td>
<td>30</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>LIMEKIC</td>
<td>Limerick</td>
<td></td>
<td>710</td>
<td>50</td>
<td>40</td>
</tr>
<tr>
<td>ARDINISH</td>
<td>Tipperary</td>
<td></td>
<td>501</td>
<td>88</td>
<td>66</td>
</tr>
<tr>
<td>ANNAMAR</td>
<td>Tipperary</td>
<td></td>
<td>1,440</td>
<td>118</td>
<td>53</td>
</tr>
<tr>
<td>KILDARE</td>
<td>Kildare</td>
<td></td>
<td>1,324</td>
<td>114</td>
<td>300</td>
</tr>
<tr>
<td>GLOUCES</td>
<td>Tipperary</td>
<td></td>
<td>406</td>
<td>39</td>
<td>-</td>
</tr>
<tr>
<td>BALLYROSS</td>
<td>Kilkenny</td>
<td>509</td>
<td>24</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>BALLYBUN</td>
<td>Sligo/Koscow</td>
<td>418</td>
<td>34</td>
<td>114</td>
<td>-</td>
</tr>
<tr>
<td>ANNAGHILL</td>
<td>Kerry</td>
<td></td>
<td>478</td>
<td>24</td>
<td>-</td>
</tr>
<tr>
<td>WATERFORD</td>
<td>Wexford</td>
<td></td>
<td>715</td>
<td>66</td>
<td>236</td>
</tr>
<tr>
<td>MALLOW</td>
<td>Tipperary</td>
<td></td>
<td>280</td>
<td>6</td>
<td>-</td>
</tr>
<tr>
<td>CORK</td>
<td>Cork</td>
<td></td>
<td>732</td>
<td>66</td>
<td>96</td>
</tr>
<tr>
<td>DUNDEE</td>
<td>Monaghan</td>
<td></td>
<td>1,182</td>
<td>99</td>
<td>252</td>
</tr>
<tr>
<td>DUBLIN</td>
<td>Dublin</td>
<td></td>
<td>260</td>
<td>6</td>
<td>-</td>
</tr>
<tr>
<td>DUBLIN</td>
<td>Meath</td>
<td></td>
<td>836</td>
<td>66</td>
<td>150</td>
</tr>
<tr>
<td>DUNDALK</td>
<td>Meath</td>
<td></td>
<td>850</td>
<td>68</td>
<td>-</td>
</tr>
<tr>
<td>GALWAY</td>
<td>Galway</td>
<td></td>
<td>23</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>BALLYOOLEY</td>
<td>Galway</td>
<td>1,320</td>
<td>106</td>
<td>301</td>
<td>-</td>
</tr>
<tr>
<td>GALWAY</td>
<td>Galway</td>
<td></td>
<td>879</td>
<td>74</td>
<td>200</td>
</tr>
<tr>
<td>GALLAGHER</td>
<td>Galway</td>
<td>786</td>
<td>67</td>
<td>149</td>
<td>-</td>
</tr>
<tr>
<td>BALLYCUN</td>
<td>Galway</td>
<td>30</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>LIMEKIC</td>
<td>Limerick</td>
<td></td>
<td>710</td>
<td>50</td>
<td>40</td>
</tr>
<tr>
<td>ARDINISH</td>
<td>Tipperary</td>
<td></td>
<td>501</td>
<td>88</td>
<td>66</td>
</tr>
<tr>
<td>ANNAMAR</td>
<td>Tipperary</td>
<td></td>
<td>1,440</td>
<td>118</td>
<td>53</td>
</tr>
<tr>
<td>KILDARE</td>
<td>Kildare</td>
<td></td>
<td>1,324</td>
<td>114</td>
<td>300</td>
</tr>
<tr>
<td>GLOUCES</td>
<td>Tipperary</td>
<td></td>
<td>406</td>
<td>39</td>
<td>-</td>
</tr>
<tr>
<td>BALLYROSS</td>
<td>Kilkenny</td>
<td>509</td>
<td>24</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>BALLYBUN</td>
<td>Sligo/Koscow</td>
<td>418</td>
<td>34</td>
<td>114</td>
<td>-</td>
</tr>
<tr>
<td>ANNAGHILL</td>
<td>Kerry</td>
<td></td>
<td>478</td>
<td>24</td>
<td>-</td>
</tr>
<tr>
<td>WATERFORD</td>
<td>Wexford</td>
<td></td>
<td>715</td>
<td>66</td>
<td>236</td>
</tr>
<tr>
<td>MALLOW</td>
<td>Tipperary</td>
<td></td>
<td>280</td>
<td>6</td>
<td>-</td>
</tr>
<tr>
<td>CORK</td>
<td>Cork</td>
<td></td>
<td>732</td>
<td>66</td>
<td>96</td>
</tr>
<tr>
<td>DUNDEE</td>
<td>Monaghan</td>
<td></td>
<td>1,182</td>
<td>99</td>
<td>252</td>
</tr>
<tr>
<td>DUBLIN</td>
<td>Dublin</td>
<td></td>
<td>260</td>
<td>6</td>
<td>-</td>
</tr>
<tr>
<td>DUBLIN</td>
<td>Meath</td>
<td></td>
<td>836</td>
<td>66</td>
<td>150</td>
</tr>
<tr>
<td>DUNDALK</td>
<td>Meath</td>
<td></td>
<td>850</td>
<td>68</td>
<td>-</td>
</tr>
<tr>
<td>GALWAY</td>
<td>Galway</td>
<td></td>
<td>23</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>BALLYOOLEY</td>
<td>Galway</td>
<td>1,320</td>
<td>106</td>
<td>301</td>
<td>-</td>
</tr>
<tr>
<td>GALWAY</td>
<td>Galway</td>
<td></td>
<td>879</td>
<td>74</td>
<td>200</td>
</tr>
<tr>
<td>GALLAGHER</td>
<td>Galway</td>
<td>786</td>
<td>67</td>
<td>149</td>
<td>-</td>
</tr>
<tr>
<td>BALLYCUN</td>
<td>Galway</td>
<td>30</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

ARREAS COMPLETED: 543.

TOTAL TO DATE: 288,652 20,739 90,915
TOTAL FOR MONTH: 4,428 350 1,296

The above is confidential to the Board's staff and copyright in whole or part.
**Cost and Miles-per-Unit of Work**

With the improvement in the weather, it is encouraging to note that there has also been an improvement in the cost and mileage figures of some gangs in February. The following deserve special mention:

<table>
<thead>
<tr>
<th>Area</th>
<th>District</th>
<th>R.A./Supervisor</th>
<th>Unit Cost for</th>
<th>Miles per Unit For</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Month</td>
<td>Month</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>To date</td>
<td>To date</td>
</tr>
<tr>
<td>Coone</td>
<td>Fortlaose</td>
<td>M. Hayden/F. White</td>
<td>28/10</td>
<td>30/3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2.9</td>
</tr>
<tr>
<td>Crosskeys</td>
<td>Dundalk</td>
<td>K. Sparrow/P. Connolly</td>
<td>33/5</td>
<td>36/11</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4.8</td>
</tr>
<tr>
<td>Woodsgift</td>
<td>Fortlaose</td>
<td>L. Purcell/E. Ryan</td>
<td>33/7</td>
<td>37/11</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.5</td>
</tr>
<tr>
<td>Leitrim</td>
<td>Galway</td>
<td>D. Greene/J. King</td>
<td>35/10</td>
<td>37/2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4.8</td>
</tr>
<tr>
<td>Carrigtoher</td>
<td>Limerick</td>
<td>J. Ryan/T. Hickey</td>
<td>37/10</td>
<td>39/2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.9</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4.2</td>
</tr>
<tr>
<td>Ballycumber</td>
<td>Athlone</td>
<td>B. Bambury/W. Loughman</td>
<td>38/2</td>
<td>39/-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4.9</td>
</tr>
<tr>
<td>Tonyduff</td>
<td>Dundalk</td>
<td>V. Gallagher/J. Kinsella</td>
<td>36/9</td>
<td>40/-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Acting)</td>
<td></td>
<td>5.2</td>
</tr>
</tbody>
</table>

As mentioned in previous months, the improvement among some of the other gangs is continuing, and we are glad to include above, two crews, to whose results we have not previously referred.

321x239mm (96 x 96 DPI)