Project Title:

recognition of performance efficiency indicators and implementation of the dashboard of selected indicators at three levels of government,corporate and operation of Iran's electricity distribution sector

Department:	monitoring and surveillance of electricity distribution sector project/ specialized distribution deputy	**Employer:**	NRI
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Project Financial Code:	۷۰۰۰۵۲	**Project Quality Code:**	PDPN۱۸-٤
Type of Project/Program:	guideline	**Assistant:**	specialized distribution deputy

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Keywords:

Performance evaluation system, balanced scorecard, performance key indicators, data redundancy, efficiency, strategic goals.

Project Necessity:

- Integration of performance evaluation in the electricity distribution sector softwares
- Increase the speed of analysis and performance evaluation of the electricity distribution sector at different levels
- Evaluation and analysis of key indicators consistent with the goals of the electricity industry distribution sector

In the Ministry of Energy, registration information is exchanged between the government (ministry and headquarters), enterprise (Tavanir Co.) and operations (generation and distribution of electricity). The aim of this project is to provide a way to obtain important information at different levels for three levels (government, enterprise and operation). Usually there is raw information at the operational level and this raw data must be presented at various other levels including the government and the interprise according to the access permissions. Organizations that are looking for simple ways to access key information from a large amount of information

including the users of the management dashboard to make important and timely decisions by analyzing information.

At First, by studying and analyzing the existing registration data in order to identify the main efficiency indicators and then implement the indicators in the management dashboard, key management information can be obtained.

Project Goals:

- Classification and allocation of distribution sector indicators
- Defining a new distribution sector indicator systematically
- Dynamics of performance evaluation system and creation of system routine
- Establish systematic interaction from the level of governance to operation
- Develop an indicator definition methodology
- Create a comprehensive excel file for classifying and assigning indicators with full details and mentioning the source of information and access levels
- No need for administrative correspondence between levels of the electricity distribution industry to obtain key information
- Study of indicators from an expert and technical point of view by NRI
- Control and management of the monitoring and surveillance of electricity distribution sector software

Abstract:

By designing a dynamic and comprehensive software for receiving and displaying indicator information, as well as adding a new indicator according to the system routine with emphasis on access level, management and specialized information in the distribution sector will be more transparent. For this purpose, the monitoring and surveillance of distribution sector software has been designed and implemented by the employer of the Distribution Research Institute.

By developing the correct methodology for defining and classifying indicators in accordance with the most up-to-date principles, it is possible to have accurate and citationable surveillance. In this project, the classification of indicators has been done according to the methodology, distribution codes and tasks of the deputies. All the mentioned items have been implemented in the software. Also, the main purpose of the software is examined according to the main requirements and then the performance and capabilities required by the software. The main modules and the workflow of each module are drawn and finally the software pages are designed.

In order to correctly classify and record the identity of indicators based on performance evaluation models, the logic of a balanced scorecard, which is based on establishing a relationship between the organization's strategy and executive actions, has been used.

Steps and Methodologies:

In the first step, upstream documents were first researched to examine the policies, goals and strategies of the electricity industry. Then, the operating principles of electricity distribution companies were performed by provinces. Among of ۳۹ power distribution companies, ۱۳ companies were selected as sample companies for

study, and finally, the conditions governing the electricity distribution industry were explained. In the section of explaining the prevailing conditions, four sections were discussed:

١- Power distribution industry from the upstream documents
٢- prevailing conditions of distribution
٣- Previous studies
٤- Comparative studies

In the first part, as many different dimensions of the power distribution industry as possible, including: its position in the electricity industry, mission, aspirations of distribution features, commitments of distribution companies, chart of main department of companies, restructuring process, government institutions and businesses in the industry Was studied.

In the second part, the conditions governing Iranian power distribution companies were reviewed and the image of the current situation was editedd.

The last two sections were allocated to reviewing previous studies of the situation in other countries. In this regard, review articles and relevant instructions and tips related to the topic of research were extracted. Regarding the study of other countries, countries and states such as Australia, Ontario, USA, and Sri Lanka, based on previous studies and available documents, have been designated as target countries. By reviewing the rules and conditions of their power distribution industry, points related to the management dashboard were extracted.

In the second step, the principles of efficiency and performance and the literature of each subject were studied. After the definitions, the types of efficiency and key indicators performance and consumption of each were studied and the methodology of the project and then the methodology of developing indicators were determined. According to the methodology of comparative studies project were conducted in three countries, Canada, the United Kingdom and Australia, to examine the distribution codes, key indicators and distribution structure of each country. Then the monitoring, control and performance evaluation system of Iran's electricity distribution industry was categorized. After comparing comparative studies, the goals and evaluation system of Iran's electricity distribution industry and in line with the defined methodology, the proposed indicators were prioritized and studied. Identification of information sources and offices related to each data was done after compiling the indicators.

In the third step, the software and hardware requirements, the programing of the monitoring and surveillance of electricity distribution software, and finally the identification of the main modules and the workflow of each are discussed. Then, the design and implementation of the main pages and the database and the links of the pages and forms are described in detail.

At the end, the operating instructions(manual) for the system audience and also the maintenance of the system by the admin are specified.

Main Results (technical outputs, patents, papers, books, reports, etc.):

- monitoring and surveillance of Iran's electricity distribution software
- Excel file of classified indicators
- Study the competence of indicators from definition to monitoring
- Develop a methodology for defining indicators in the electricity distribution sector
- Technical and step-by- step reports
- Visio file of executive workflow levels in three levels of electricity industry
- Creating a database on the server of NRI

- Control and management of evaluation of indicators in accordance with the goals of the electricity industry distribution sector by NRI
- Increase the speed of analysis and evaluation of the performance of the electricity distribution sector at different levels
- First to third stage report
- Collecting information of distribution companies from the statistical bulletin of each company's sites
- Study of financial and non-financial reports of distribution companies in Canada and Australia and relevant indicators

Papers submitted to the electricity conference with titles:

- Designing a monitoring and surveillance of Iran's electricity distribution software
- Reviewing and modifying the mechanism of compiling key indicators of electricity distribution sector

After the mentioned steps, project presentation sessions will be held in the offices related to the project so that the software and knowledge extracted from the project can be used operationally in three levels of the electricity industry.