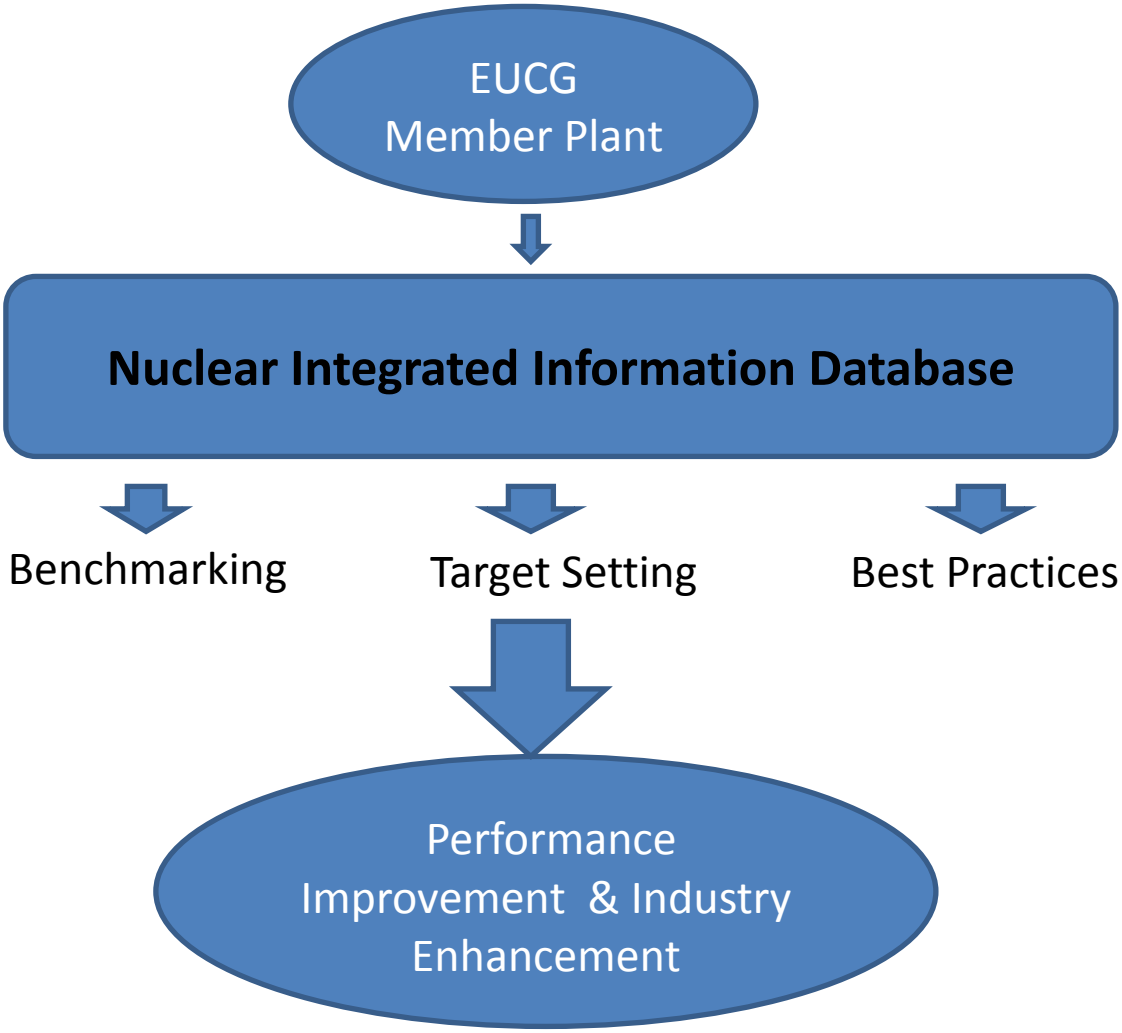
The Nuclear Integrated Information Database Overview

The **N**uclear **I**ntegrated **I**nformation **D**atabase (NIID) is the cornerstone of the EUCG – Nuclear Committee's vision *to be the recognized nuclear industry source of business operations financial data and related benchmarking, used by member companies to improve plant and industry performance.* The fundamental purpose of this database is to support benchmarking, target setting and improve members' access to industry best practices. The EUCG is a non-profit member driven organization whose sole purpose is to improve the competitiveness of its member companies and generally enhance the nuclear industry. The database was developed by the members and is maintained by a third party to ensure integrity and remain compliant with `anti-trust' standards for conduct of business.

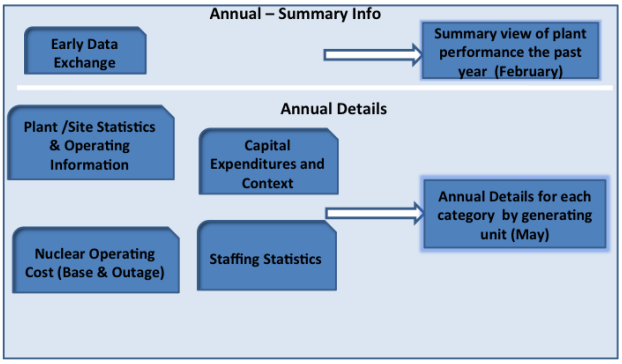


The key features of the database are:

- Contains comprehensive nuclear plant cost, staffing, and performance information.
- Includes a significant level of detail to enable benchmarking at various data levels/technology types, organizational structures.
- Includes all US nuclear utilities and a significant representation of units from international nuclear operators.
- Provides the ability to benchmark costs across nations (currencies) using the Purchasing Power Parity feature that factors out the `currency vacillations' and drives to a truer basis for benchmarking costs.
- Delivers timely release of information for use in the planning cycle of most utilities.
- Utilizes the latest technology for members to communicate, and to collect / distribute data and reports. The data inputs are web based data submittals (standard and ad-hoc) and the database uses up to date technology for subsequent access and use.

- The information is based on the principle of `give to get'. Elements of the database are only available to members if they submitted valid data for that category. This promotes timely, comprehensive, standard and valid data submissions from members.
- The data base has industry recognition and a good reputation with the US Chief Nuclear Officers.
- The relevance of the information is supported by the fact that the information is member developed and maintained (keeping up with latest changes in the industry)
- It has significant levels of historical information.
- Adheres to established data standardization to ensure comparability for industry benchmarking.
- Provides the ability to include significant clarification notes to facilitate understanding.
- Requires a significant review and verification process to ensure data quality and consistency.
- Adheres to high standards of security and is maintained by a third party to ensure `anti-trust' rules are followed.
- The bi-annual meetings provide a vehicle for members to establish contacts to better understand data and exchange underlying practices.
- Standard reports are produced to enable members to get a jump start on their annual planning and benchmarking efforts.

1. Composition of the Nuclear Integrated Information Database



The key high-level categories of the database are:

- **Early Data Exchange (Flash Report**) - A high level and timely report of the following items: Reactor Type, Net Generation, MDC Net, Fuel Cost, Operating Costs, Total Operating Costs, Total Generation Costs, Capital Costs, Outage Start / End Dates, Outage Length (hours), Outage Costs, and Capacity Factor . The Early Data is available in February of each year and is a concise account of the main performance statistics of each operating unit for the previous year only. This is to enable input to the planning process of many utilities.
- **Comprehensive Database –** This is a warehouse of the historical and key nuclear plant cost and performance data maintained by year. This includes key operating performance statistics for the units, staffing statistics, operating and outage costs and capital expenditures by detailed categories for each operating unit. It is updated with details for the previous year and made available to all contributing members in early May. Further descriptions of the components of this database are discussed in the data Input section below.

2. Data Base Input

All database (survey) input is done by member utilities via a web-based application with user-friendly input screens. The tool has built-in self-auditing tools. The annual submissions (aka Surveys) are hosted by EUCG Internet Service Provider (ISP), but managed by Nuclear Committee Data Manager. The Web server and the application have up- to-date high security standards.

Plant and Unit Statistics - Nuclear plant and unit performance and cost information is collected in this section of the database. This section includes a description of the unit (its technology, ownership rating etc.). Performance information includes items such as capacity factors, generation, and refuelling outage duration. Cost information includes items such as capital expenditures, inventory, and fuel. This data is requested to provide perspective for the data requested in the other survey sections.

Nuclear Operating Cost (NOC) - In 2006 EUCG transitioned from the traditional utility definition of Production Cost to a more inclusive and relevant definition called Nuclear Operating Cost. This definition gives a truer picture of the nuclear plant as it encompasses direct and indirect cost incurred outside of the plant facility. The expectation with respect to NOC is to identify all relevant costs to operate and maintain the nuclear operations in that company and capture them as per the definitions in the data submittal. (e.g.: a rule of *thumb is what costs would disappear IF the company ceased to operate its nuclear operations*). The NOC has three distinct components:

- Detail information on the Base (non-outage) cost performance of the units
- Detail information on Outage costs (for outages occurring in the reporting year)
- Detail information on Fukushima costs

NOC includes the cost of labour, materials, purchased services, fuel and other costs, including administration and general costs.

Staffing - Staffing data in a similar data constitution as the Nuclear Operating Cost. It is intended that this data will provide nuclear plants with the information to evaluate their staffing to comparable plants, so that member plants will have data to fine tune their operation and better budget for labor. Staffing includes personnel on site, off site, and baseline contractors.

Capital – In 2006, the Capital database submissions were enhanced to include *significant qualitative information* that provided context to the capital spending in a utility. It was designed to provide a useful and effective approach to classifying nuclear industry capital costs to enable meaningful comparisons. It includes five distinct components.

- Capitalization Thresholds – capitalization thresholds for various categories of capital investments and is intended as contextual element of the utilities capital investments.
- Composition of Capital Costs – type of costs (removal, overheads, etc.) which is included in a utility's capital costs and is intended as contextual element of the utilities capital investments. It is information submitted at the company level.
- Capital Costs (annual data) – includes all capital costs slotted into the following six (6) major categories: Enhancements, Infrastructure, Information Technology, Regulatory, Capital Spares, and Sustaining. The submissions include all costs associated with improvements and modifications made during the reporting year, covering off design and installation costs in addition to equipment costs, capital facility additions, computer equipment, moveable equipment and vehicles.
- Capital Major Projects – listing of all major projects where the annual expenditure is greater than $10 million per project or the project total is expected to greater than $25 million. It is intended again to provide context for any noticeable swings in capital expenditures and explain if sustaining costs are on the rise or if these are one-time expenditures.
- Capitalization Policy - information is provided by plant and is intended as contextual element of the utilities capital investments. Each organization's capitalization policy information, once entered, should only require a brief review in future years to identify any policy changes or to respond to survey changes (if any).

3. **Data Quality/Integrity Standards**

In order to maintain the integrity of the database, its standing in the industry and most importantly, the benefit to the members. The following are the key parameters to ensure data quality and integrity standards:

- All required data is submitted per the approved schedule for all operating plants.
- Adherence to the data submission standards of data quality and detail that would qualify any one the four main database categories as complete for submission purposes.
- Comprehensive training is offered on data input (to support data integrity) and on data mining techniques (for subsequent use in analysis). A key objective of the training is to ensure data input is of the highest quality and there is adherence to the data definitions. The training allows new data providers and existing data providers the ability to network with their counterparts from other member utilities .
- Data is reviewed by the Data Manager and Data Review Team. The latter consists of members from other utilities who are viewed as subject matter experts in particular areas of the database. The Data Review Team reviews the data from a content and accuracy standpoint to assure the values submitted make sense for a particular data account. The review encompasses the reasonableness of costs reported, comparisons to prior year's data submittal, review of missing or incomplete data.

4. **Data Security of Access**:

- All data is blinded (plant names not shown) in NIIDWeb, however, a user can decode the Plant ID to plant names using the Decode module in the program (for internal use only).
- Each utility is assigned a utility-specific password to access NIIDWeb to input data and to use the updated database for benchmarking and analysis.
- **Passwords** are monitored and can be changed or added at any time at the utility request.
- Passwords are tied to a user profile. The user profile is used to control:
    - Utility access to the data based on give-to-get rules
    - Utility decoding of plants
    - Utility-specific groups and queries.
- Each primary member is accountable for the safeguard of the utility assigned NIID password as per the terms of the Annual Policy letter signed off on behalf of the company.

5. NIID Standard Reports:

All member utilities are also provided or have access to the annual standard reports from NIID:

- **Chief Nuclear Officer Report** - A summary of high level industry data provided to each Chief Nuclear Officer. This is an executive summary report that provides costs and rankings in terms of $/MWh.
- **Standard Benchmarking Reports** - Reports containing a compiled set of standard benchmark charts and graphs which provides members more time for analysis of the data and less time constructing the same graphs and charts.

6. Schedule/Timelines for NIID Update and release:

- Survey Data Entry Training offered (November)
- Data Submittals Communications/Instructions to Members (December)
- Early Data "Flash" Survey request (early Jan)
- Annual (detailed) Survey request (mid Jan)
- Early Data "Flash" Survey results distributed (early Feb)
    - CNO Report Distribution
- Annual Data returned from members (March/April)
- Data Review performed (March/April)
- NIID software and data release (May)