

Energiforsk – research in collaboration

- Facilitating research within electricity, heat and gas from idea to communication
- Around 15 employees
- Funding activity by activity with strong involvement from the financiers
 - Network of some 1000 experts at utilities, industry, universities, consultants and industry
- Creating benefits in the form of reports, seminars, education, guidelines, arenas etc.
 - Cost sharing
 - Neutral arena for discussion
 - Networking
 - Knowledge build up for experts
- www.energiforsk.se



Nuclear portfolio 2016

Concrete

GINO – Grid interference on nuclear operations

Vibrations

ENSRIC – Safety related I&C systems.

Strategic Monitoring

COMRADE – Acceptance criteria polymeric materials

Stakeholders:

VATTENFALL



**uni
per**

TVO

 **Fortum**



**Strål
säkerhets
myndigheten**

Swedish Radiation Safety Authority



 **Skellefteå
Kraft**

 **Energiforsk**

ENSRIC – Energiforsk Nuclear Safety Related I&C

- Vision:
 - Safe and robust I&C systems that promotes low Life Cycle Cost
 - Support the decision making process in modernization of I&C systems
- Focus areas 2017:
 - LTO of existing platforms and systems
 - Safety demonstration and licensing
 - Emerging technologies
- Steering group with experts from Swedish and Finnish NPP:s and the Swedish Radiation Safety Authority
- Projects initiated by steering group
- Activities carried out by qualified consultants and researchers usually through procurement

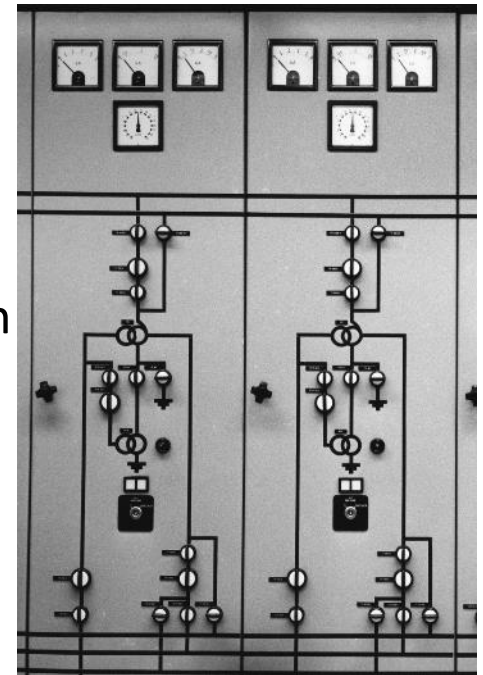


Photo: Vattenfall

ENSRIC Activities

1. Lifetime extension of nuclear I&C
 - Mapping of methods and several market surveys ([USA](#), [Belgium/Germany](#), France,)
 - Partial digital replacement
 - FPGAs ([FPGAs in nuclear applications](#), [V&V](#))
2. [Asset management of programmable platforms and systems](#)
3. [Safety Demonstration Plan Guide](#)
4. [Safety demonstration planning \(Nordic project\)](#)



Coming seminars within Nuclear

- [Sub Synchronous Oscillations](#), November 24 in Stockholm
- Energiforsk Annual Nuclear Conference January 24-25 in Stockholm
- [Nuclear Technology and Policy Developments](#) – A Global Perspective
- Kraftindustrins Betongdag, March in Älvkarleby

