

**Sustainable Energy
in the
Domestic and Commercial Environment
(SEDCE)**

Industry Forum 2009

- **What the project is about?**
- **Who is involved - ITOs, Stakeholders?**
- **What is involved – Electro/Mechanical, - Other?**
- **Why it is happening?**
- **What will be done during project?**
- **What are possible outcomes?**

What the project is about?

- **Industry training in sustainable energy principles and practices in the built environment**
- **Extension from ESITO's original plans to develop sustainable energy generation qualifications**
- **Approved and funded by TEC as a Sector Leadership project with ESITO as the lead ITO**
- **Reflects the cross-trade integration of skills required for some sustainable energy solutions in buildings**

Who is involved - ITOs?

- **Electricity Supply ITO (ESITO)**
- **ETITO** (*also a BETA member*)
- **Built Environment Training Alliance (BETA)**
 - **Building & Construction ITO**
 - **Creative Trades ITO**
 - **InfraTrain**
 - **Joinery ITO**
 - **New Zealand Flooring ITO**
 - **Plumbing, Gasfitting, Drainlaying & Roofing ITO**

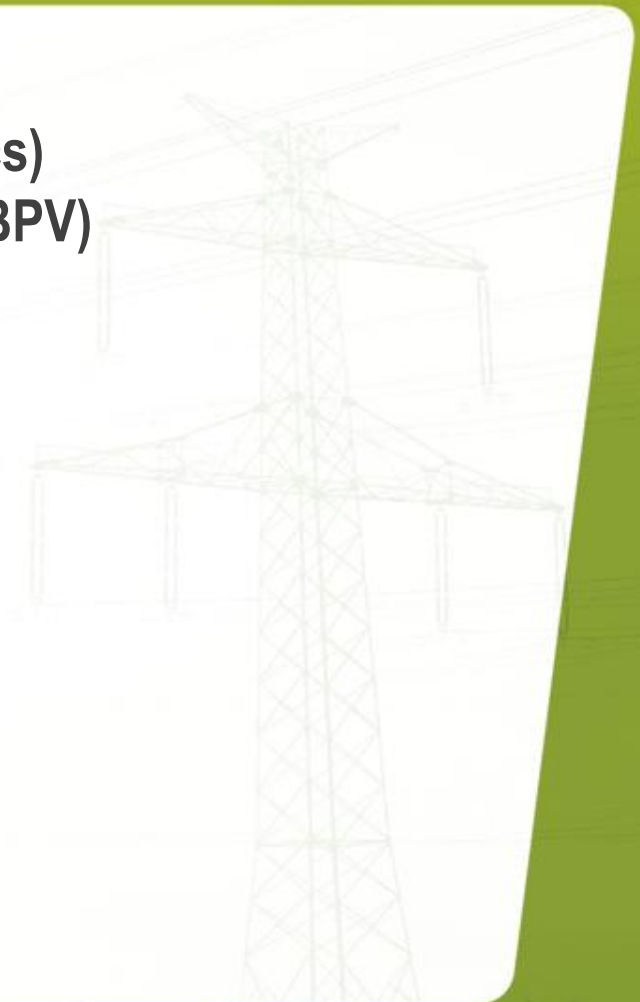
Example stakeholders

- **ECANZ**
- **EECA**
- **EMANZ**
- **EWRB**
- **Member Companies**
- **Green Building Council**
- **Industry Advisory Groups**
- **IPENZ**
- **ITF**
- **NZCTU**
- **NZQA**
- **SEANZ**
- **TEC**
- **Training Providers**

What is Involved?

- Electro/Mechanical Technologies -

- **Distributed generation**
 - Solar power generation (Photovoltaics)
 - Integrated Building Photo Voltaics (IBPV)
 - Micro wind turbines
 - Micro hydro
 - Grid connect
- **Energy management**
 - Energy Management Systems
 - Smart meters
- **Energy efficiency**
 - Lighting
 - Heating and cooling systems
 - Appliances and operating systems



What is Involved? - Other Industries -

- **Site development and landscaping**
- **Energy efficient structures**
- **Embodied energy in materials**
- **Renewable building materials**
- **Construction energy consumption**
- **Thermal mass**
- **Insulation**
- **Passive solar design**
- **Natural lighting systems**
- **Natural ventilation systems**
- **Solar Water Heating**
- **Water efficiency**



Why it is happening?

- **Global movement in environmental awareness**
- **Increasing demand for training in sustainable energy related skills in the built environment**
- **Response to Government Strategies**
- **Residential and commercial buildings consumed 22% from all energy sources (2006)**
- **The annual cost of electricity and gas consumed in residential buildings was about \$2.3 billion (2006)**

Mike Underwood, CEO, EECA – Last year

EECA

Energy Efficiency and
Conservation Authority
Te Tari Taaki Pūngao

Conclusion

- Government is committed to developing a sustainable energy system
- This means maximise efficiency, maximise renewables
- This creates opportunities for your industry
- Especially in the DG area
- **Future growth must be underpinned by quality, knowledge and expertise**

What will be done within the project?

Key Steps:

1. **Consultation with stakeholders**
2. **Needs definition**
3. **Research for material**
4. **Development**
5. **NQF Registration**

What are possible outcomes?

- **Unit standards**
- **Embedment into existing qualifications**
- **New qualifications**
- **SEDCE Education Plan**
- **Model for collaboration**

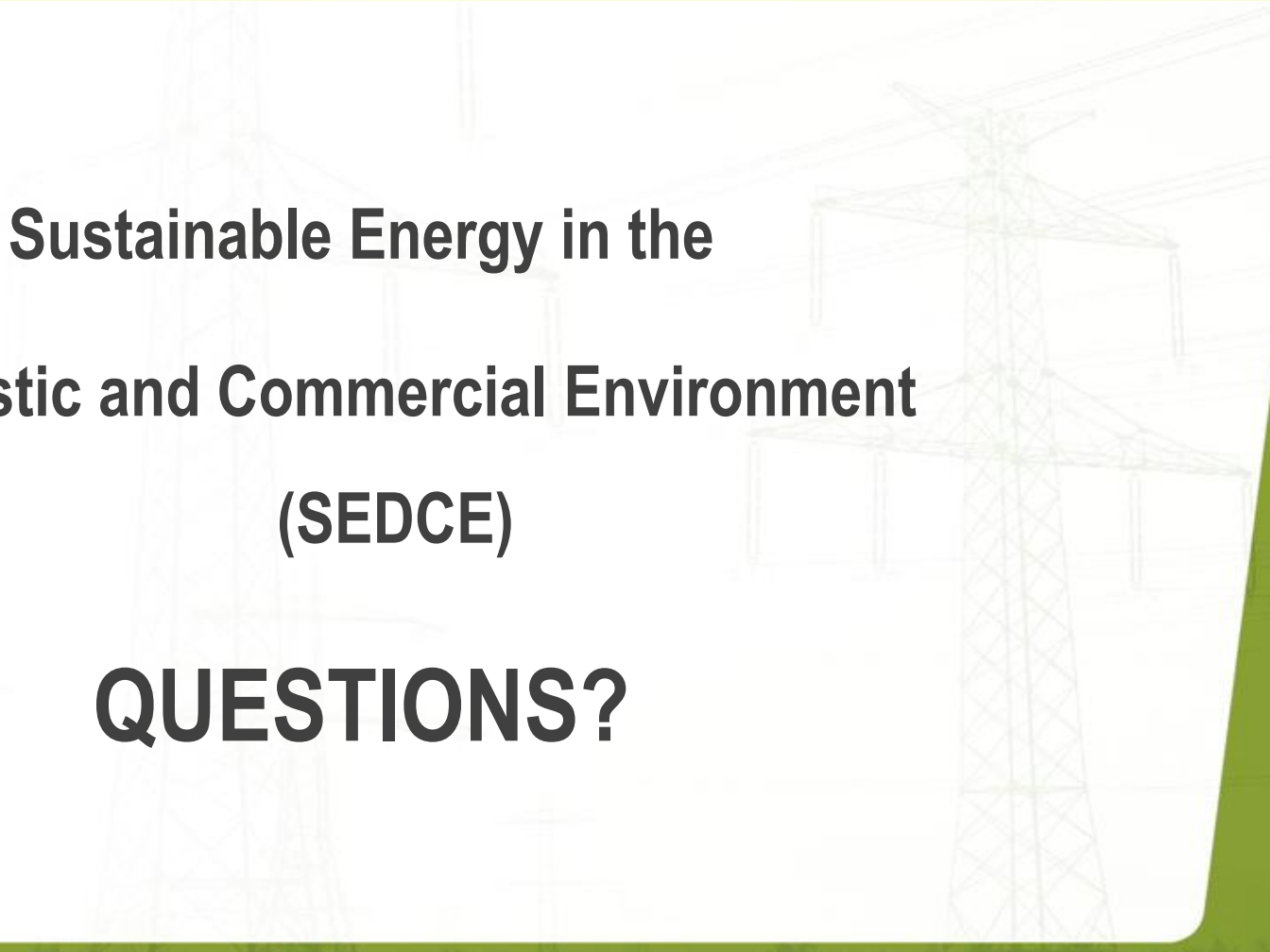
SEDCE Education Plan

- **Qualification profiles and relationships to career paths**
- **Articulation routes between qualifications at each level**
- **Career advice and entry prerequisites**
- **Likely demand profiles**
- **Compatibility with international best practice**
- **Pathways to SEDCE for secondary school sector**
- **Decision drivers on potential students**
- **Industry inputs to skill development**
- **The nature of a national network of provision**
- **The essential character of provision at each provider**

Examples of Vocational Positions possibly benefiting from a Higher Level Qualification

Building Operator	Energy Analyst	Energy Auditor,
Energy Rating Assessor	Energy Advisor	Specifier
Energy Consultant	Energy Manager	Building Inspector
Site manager	Project Manager	Instructor/Trainer

- **Employment by energy planning/installation organisations**
- **Personal development in existing position**
- **Possible connections to Accredited Energy Auditor (AEA):**
 - **Organisational positions interacting with AEs.**
 - **Employment by AEs as associates or assistants.**
 - **Staircase from trade level to AEA status**



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QUESTIONS?