

Masterclass: Integrated energy issues for policy makers

Masterclass by international experts in the field.

Abu Dhabi
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National challenges for energy policy

Safe and reliable energy for a vital economy

Energy is a key driver for many societal and economic activities. Energy helps to provide comfortable living and working conditions, powers devices and appliances, drives transport and mobility and fuels industrial processes. Safe and reliable energy supply is essential for modern societies.

Challenges in the 21st century

Meeting growing demand, environmental concerns and cost aspects form significant challenges for countries in safeguarding this safe and reliable supply and require continuous developments in the energy system. Efficient and effective policies to streamline this should be based on factual analysis of national circumstances. Generally, a multitude of development options exist, each with their own set of costs and benefits. Policy makers worldwide are searching for optimal strategies to tackle these challenges.



International climate ambitions

UNFCCC: Intended Nationally Determined Contributions

During the international climate negotiations, all countries have agreed to publicly outline what actions they intend to take. These country commitments are known as Intended Nationally Determined Contributions (INDCs). Together they will largely determine whether the world achieves an ambitious 2015 agreement and is put on a path toward a low-carbon future. A country's INDC should signal to the world that they are doing their part to combat climate change and limit future climate risks.



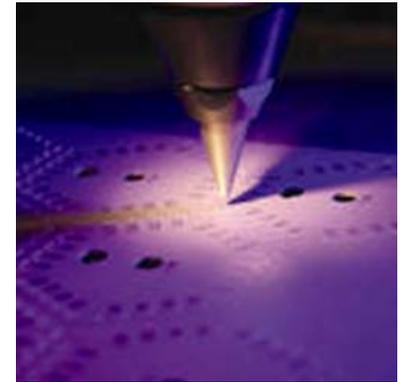
Tailormade masterclass

Level I masterclass

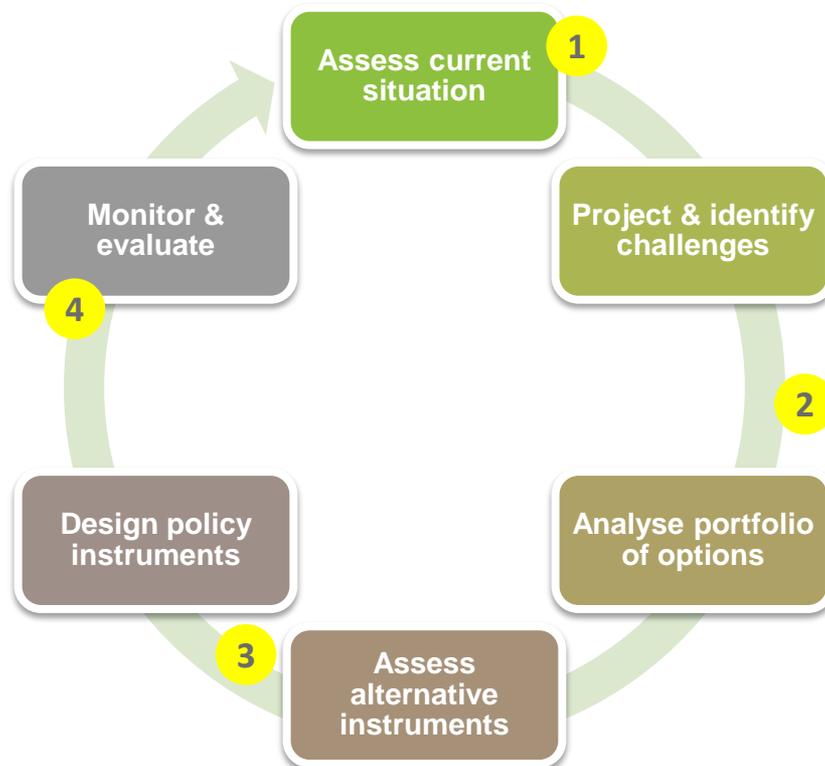
The level I master class Integrated Energy Issues provides essential insights for energy strategy policy makers. It discusses the energy system building blocks, development options, policy instruments, and their consequences and interrelations. The masterclass combines lectures on theory, tools to tackle policy questions, and interactive sessions to enable participants to successfully engage in energy strategy policy making. The course builds on participant's making use of ECN's practical experience in energy policy support. It's topics and duration will be tailored to specific interests.

Outcome

After following the masterclass participants will be able manage a process for a government that results in an Intended Nationally Determined Contribution (INDC), a national or sectorial climate and energy plan, strategy, or policy framework. They will understand which issues are of importance and what services are necessary.



Support along the policy cycle



1. Inventory and monitoring
 2. Scoping and prioritizing
 3. Instruments for deployment of renewable energy and energy efficiency
 4. Increased policy effectiveness
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Inventory and monitoring

Context

Knowing the current state of the energy system, the drivers for energy demand and modes of energy supply is the starting point for any energy policy. It is fundamental for identifying the need for change. Knowing prevailing trends and how the energy system is likely to develop is equally fundamental, as it helps to estimate the needs in the future.

Questions

- What is a useful classification of subdomains in the energy system?
- What are the major drivers for energy use in each domain?
- What role do technology developments have?
- What interactions exist between energy use and supply in the domains?
- What are the environmental impacts of the energy system?

ECN Practice examples

- Energy trends report
 - National energy outlook
 - UNFCCC greenhouse gas inventory
 - Protocol monitoring energy efficiency
 - MRV models and procedures
 - Gap analysis
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Scoping & Prioritizing

Context

Energy systems are continuously developing and with it their impact on society, economy and the environment. Cost of energy, emissions of greenhouse gases or other pollutants and security of supply are major challenges globally related to such developments. At the same time, energy is a crucial component for economies and any change in is surrounded by big stakes.

Questions

- What challenges should energy policy address?
- How to set and balance appropriate policy targets?
- What technologies or developments can contribute to achieving targets?
- How to nurture technology innovation?
- What stakes are involved with policy interventions? (costs, benefits)

ECN Practice examples

- Marginal abatement cost curves
 - Costs and benefits of climate policy 2050
 - Support of ministries for EU 2030 targets
 - Innovation policy support
 - Roadmaps – tracking and trailblazing, towards a clean economy in 2050
 - Global & regional integrated assessment models
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Instruments for deployment of renewable energy and energy efficiency



Context

Technologies to produce energy from renewable sources are rapidly improving through global innovation effort. Innovations that improve energy efficiency are also being developed. Renewable energy and energy efficiency measures can be cost effective additions to the national energy system, and also provide important opportunities for decreasing climate impact and economic development.

Questions

- In what way can renewable energy sources be effectively used in the subdomains of the energy system?
- What potentials exist for various renewable energy and energy efficiency options?
- How can renewable energy and efficiency uptake be efficiently stimulated?
- How do renewables interact with other policy interventions?
- What economic opportunities can renewables and efficiency offer?

ECN Practice examples

- Technology development for windenergy, solar energy, biomass gasification
 - National renewable energy action plan
 - Qatar solar PV factory
 - Feed in tariffs calculation
 - Technology needs assessment
 - NAMA design
 - Support of stakeholder negotiations
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Increased Policy Effectiveness

Context

Effective and efficient policy interventions require a sound understanding of the challenges, and should be grounded in robust, consistent, fact based analysis of domestic circumstances, opportunities and threats. Developing an analysis toolbox allows to evaluate the effects of various possible interventions or development pathways and to present the selected results that are relevant for political decision making

Questions

- What parameters are most relevant for policy makers?
- How to balance multiple policy objectives?
- How to optimize a longterm development strategy?



ECN Practice examples

- National energy outlook modelling system
 - Simulating developments and effects of policy in subdomains
 - Optimization of option portfolio for given targets (OPERA)
 - Building scenario's for possible futures
 - Impact Analysis visualization
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Our Experts

Our experts at your service

Our Masterclass will be tailor made. We involve the key experts to suit your specific demand. ECN has over 500 researchers and consultants and ECN has a broad global network involving the leaders in the field.

- Dr. Piet Boonekamp – Energy efficiency policy expert
 - Dr. Sander Lensink – Renewable energy policy expert
 - Ton van Dril – Industry policy and economy expert
 - Dr. Marc Londo – Transport policy and stakeholder processes
 - Casper Tigchelaar – Built environment policy expert
 - Dr. Michiel Hekkenberg – Integrated energy and climate strategies
 - Xander van Tilburg – International climate policy expert
 - Lachlan Cameron – International finance expert
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