

# Buildings investment and the policies that drive it

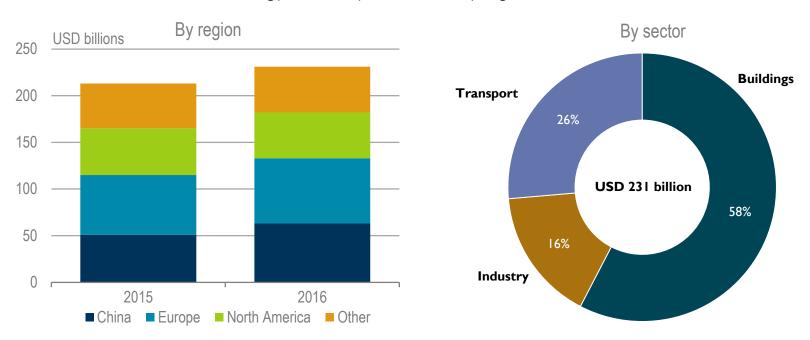
Brian Motherway



## **Energy efficiency investment is growing**



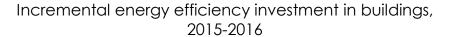
#### Energy efficiency investment by region and sector

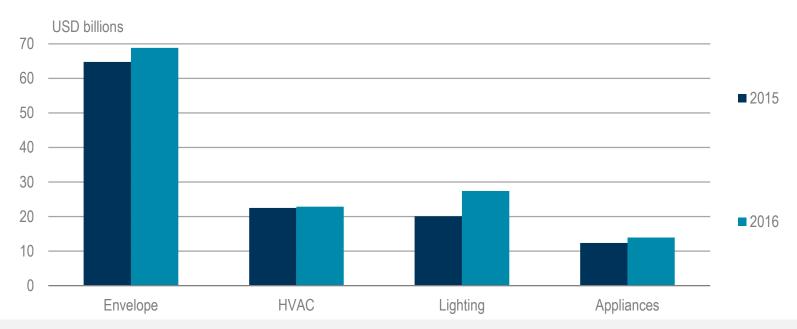


Energy efficiency investment grew 9% in 2016, with grow strongest in China. The buildings sector continues to dominate global investment

# Building investment has seen big growth in recent years



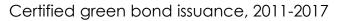


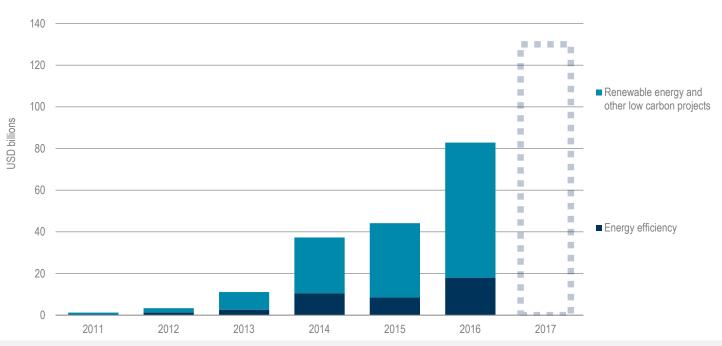


Over the past three years, energy efficiency investment in the buildings sector increased steadily, growing by 8% in 2015 and 12% in 2016

## **Green bonds**





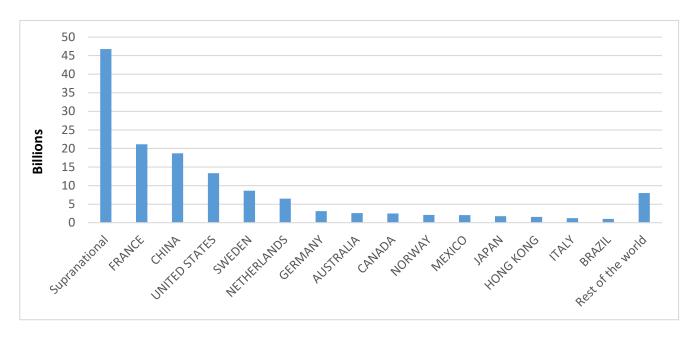


Green bond issuance is experiencing rapid growth

# Green bonds for energy efficiency



Certified green bond issuance for energy efficiency, 2011-2017

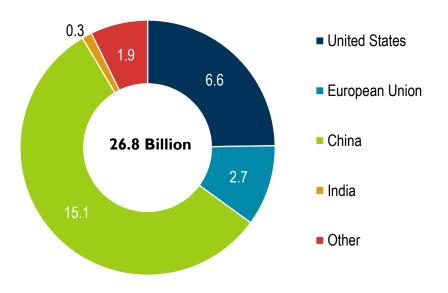


France and China lead green bond issuance for energy efficiency

# **Energy Service Company (ESCO) Development**



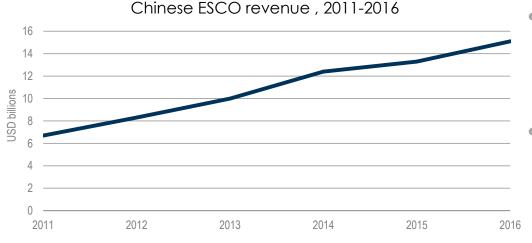
ESCO revenue by region, 2016



### **ESCO** growth is driven by policy

#### Chinese ESCO and investment incentives





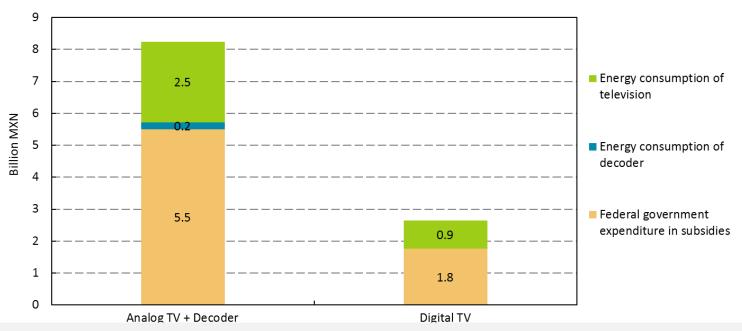
## Strong targets

- National 5-year plan (2011-2015) energy efficiency target of 16% reduction in energy intensity
- Direct financial awards and tax incentives
  - Dedicated Energy Savings Funds (ESF)
- Established frameworks
  - Directives for ESCOs
  - Favorable accounting system

# Targeting subsidies to maximise impact



Comparison of annual expenses by households and Mexican government with analogue television and decoder versus digital television



The Mexican government is providing 14 million LED TVs to low-income households. The USD 102.4 million cost is expected to be recovered through avoided consumption and reduced subsidies

## Buildings energy efficiency in Western Balkans (REEP Plus)

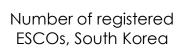


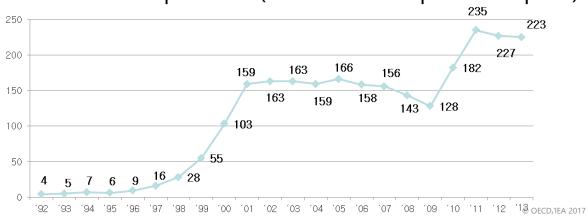
- The objective of REEP Plus is to create a sustainable market for energy efficiency in the Western Balkans
- Grants and direct funding of approximately EUR 50 million is provided for municipalities from development banks (EBRD, KfW) and governments (Austrian Federal Ministry of Finance)
- Financing facilities via local banks established a dedicated credit line
- Specific measures are dedicated for ESCO support and policy development
- Overall REEP implementation led to a large increase in projects delivered/planned

#### **ESCOs in South Korea**



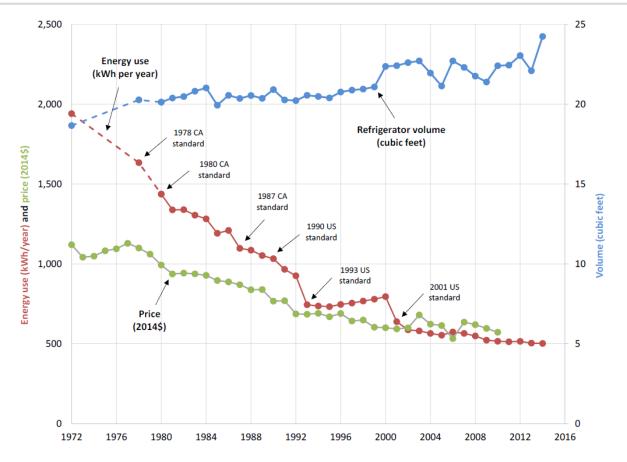
- Extensive government support in the form of policy and finance
  - Tax credits, review of existing policy, long-term and low interest loans
- Established implementing agency (KEMCO, now KEA) to review and evaluate proposed projects
- In 2012 approx. USD 502 million in funding was provided
- Resulted in a savings of 550 kilo tons of oil equivalent (11 kWh saved per USD spent)





# Impact of Refrigerator Standards on Energy Consumption in the US





ACEEE, 2017. Energy-Saving States of America: How Every State Benefits from National Appliance Standards

## The broad policy agenda



- Orienting incentives and removing barriers
- Addressing the diffuse investments
- Mobilizing supply and demand of solutions
- Actively working to build markets
- Valuing the full benefits

## **Concluding points**



- There are many types of energy efficiency investments, requiring many types of policy interventions
- There often remains a 'language barrier' between sources of capital and EE opportunities
- Public sector leadership is key to mobilise private sector finance

