

POST COP21 – FROM INDCS TO DEEP DECARBONIZATION

PMR Workshop

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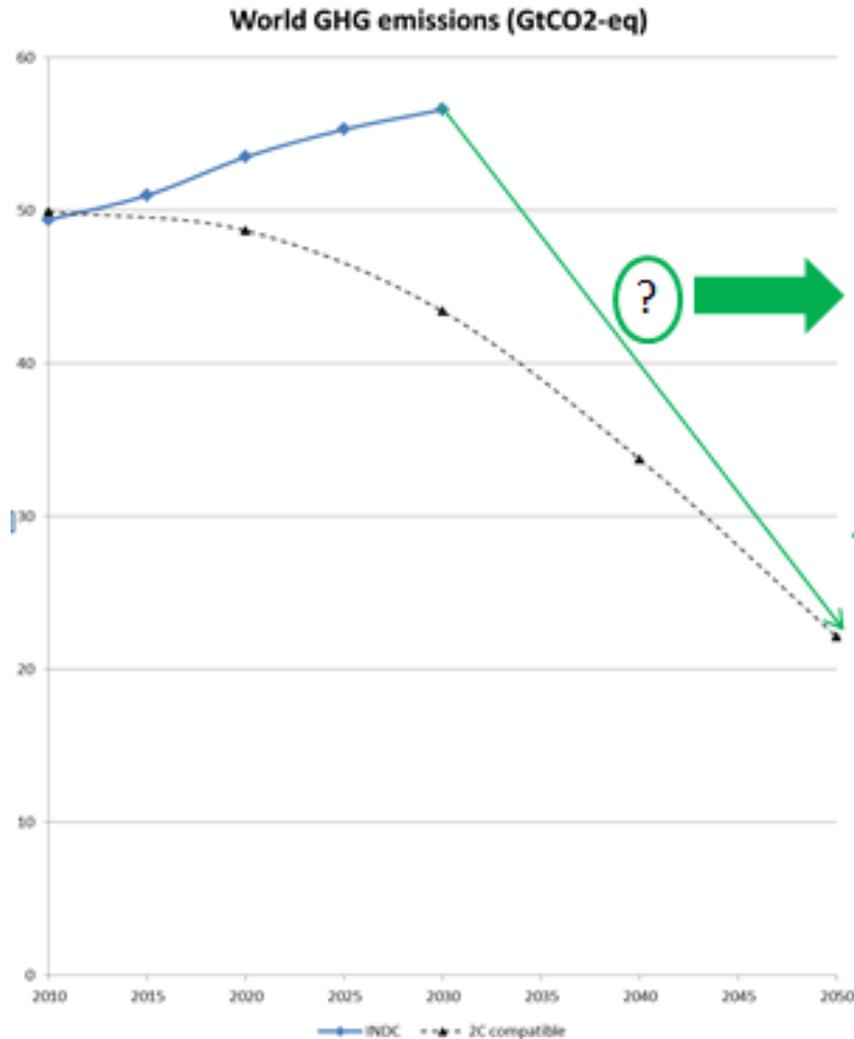
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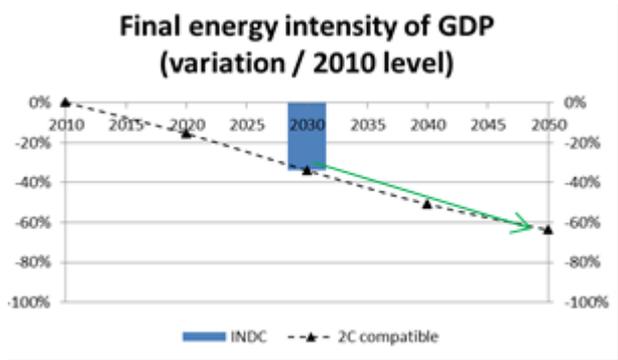
1. After COP21, from INDCs to Deep Decarbonization
2. The importance of the implementation agenda after COP21
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After COP21 from INDCs to Deep Decarbonization

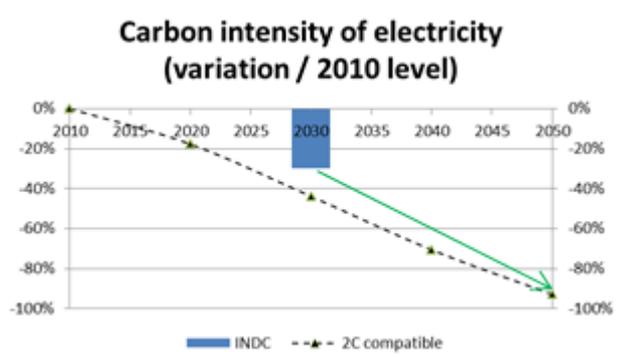


- INDCs imply a consolidation and acceleration of climate action at global level and in major economies
- Implementing them will require strong and comprehensive new policies (more about this later)
- It is clear that INDCs are not consistent with 2C
- It is crucial to understand the structure of transformation:
 - ‘transformation gap’ not ‘emissions gap’

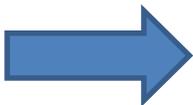
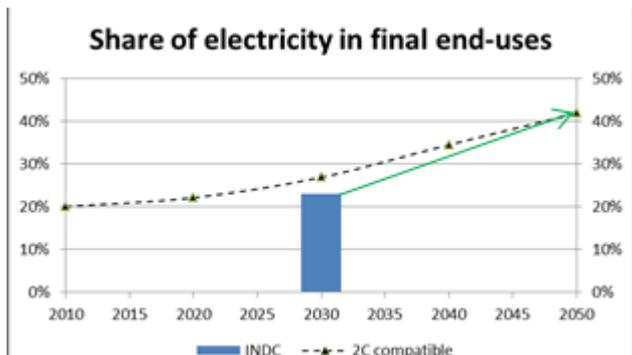
After COP21 from INDCs to Deep Decarbonization



- Ensuring implementation of ambitious announced energy efficiency policies
- Retrofit of existing stock
- “Right development choices” for developing countries



- Increasing the competitiveness, availability and deployment of green tech (ex. CCS??)
- Strategies to avoid lock in



- Early preparation of post-2030 scale up
- Innovation and infrastructure

After COP21 from INDCs to Deep Decarbonization

- Policy needs to take into account the structure and timing of the required transformation
- A long-term perspective provides short term and long term benchmarks for policy
 - Long-term (2050-2100): very deep decarbonization for all countries
 - Short-term (2020-30): intertemporal constraints of long-term transformation, required structure and depth of transition, and interrelationships between choices
- Implementing INDCs as a stepping stone to deep decarbonization:
 - Where and how can we strategically overachieve INDCs?
 - How to address the structural inadequacies of INDCs through reinforced cooperation and the revision mechanism of the PA?

After COP21 from INDCs to Deep Decarbonization

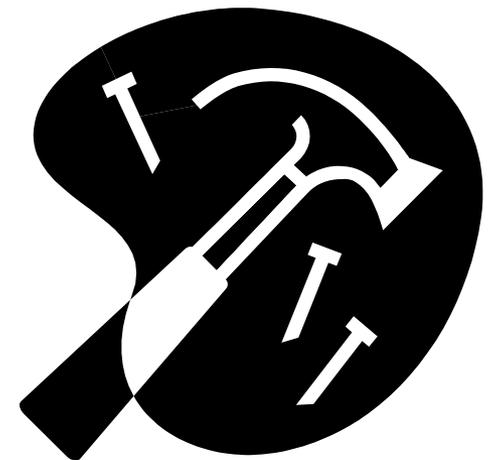
Table 4. Sector Dashboard Template (Building Sector Example)

Building & Transport Sector Inputs and Indicators								
Residential Sector Inputs		2010	2020	2030	2040	2050	2050 vs. 2010	Ave. Ann. Change
Floor area, residential units	Msqm	2 019	2 236	2 416	2 565	2 696	34%	0,73%
Residential FEC	EJ	1,96	1,83	1,81	1,86	1,54	-22%	-0,59%
Residential non-electricity FEC	EJ	1,54	1,45	1,43	1,38	0,79	-49%	-1,65%
Residential district heating	EJ	0,00	0,03	0,05	0,15	0,25	2400%	
Residential solar thermal	EJ	0,00	0,00	0,00	0,00	0,00	-100%	-100,00%
Residential pipeline gas	EJ	1,34	1,36	1,33	1,22	0,54	-60%	-2,25%
Residential liquid fossil fuels	EJ	0,14	0,05	0,03	0,00	0,00	-100%	-100,00%
Residential coal and coal gas	EJ	0,02	0,01	0,00	0,00	0,00	-100%	-100,00%
Residential solid biomass	EJ	0,02	0,00	0,03	0,01	0,00	-100%	-100,00%
Residential final electricity	TWh	126	114	118	173	289	129%	2,10%
Residential non-electricity CO ₂ emissions	MtCO ₂	83	77	73	67	30	-64%	-2,53%
Residential total CO ₂ emissions	MtCO ₂	139	112	77	65	21	-85%	-4,59%
Residential Sector Indicators								
Per capita residential floor area	sqm/cap	32	33	34	35	35	9%	0,22%
Residential energy intensity	kWh/sqm	269	227	208	201	159	-41%	-1,31%
CO ₂ intensity of residential FEC	tCO ₂ /TJ	71,11	61,46	42,69	34,71	13,78	-81%	-4,02%
Non-electricity CO ₂ emission factor	tCO ₂ /TJ	53,74	52,94	51,05	48,23	37,49	-30%	-0,90%
Share of final electricity in residential FEC	%	23%	22%	23%	34%	67%	179%	2,71%

Source: IDDRI

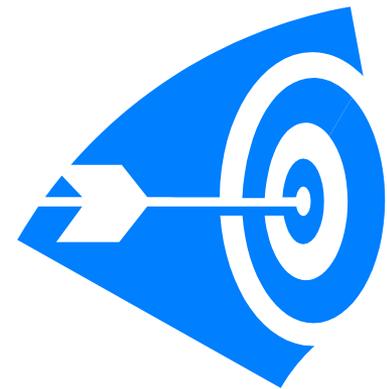
The Importance of the Post-COP21 Implementation Agenda

- The Paris agreement marks the shift from 'closed' to 'open architecture':
 - There are no 'perfect' solutions to climate change
 - Regime must be based on learning, innovation and dynamism
 - QELROS -> INDCs
 - Discrete commitment periods -> continuous forward looking cycles
- The legitimacy of the regime rests on its capacity to ensure rapid implementation, learning and strengthening
- Reaching (and strengthening) 2030 INDCs requires immediate implementation



The Importance of the Post-COP21 Implementation Agenda

- The Paris Agreement sets the date of 2018 for the first stocktaking dialogue
- This sets an important deadline for international and national policy development, to lay the foundation for the next steps in 2020
- At national level: identification and adoption of key legislation/regulation to implement INDCs.
- In some places, important pieces should be put in place in 2016/17 (13th FYP, ETS reform etc.).
- International dialogue is crucial



A Conducive International Framework for INDC Implementation

- Several challenges for international climate cooperation beyond the ‘basic collective action challenge’ addressed in the Paris Agreement
 - Trade and competitiveness
 - Innovation
 - Deployment and availability of clean technologies
 - Financial incentives, support and financial system restructuring
- We need to ‘flesh out the’ policies and transformations implied by INDCs, in order to better understand international spillovers and opportunities for cooperation:
 - How much, of which technologies, with what impacts on costs and innovations?
 - Which policies will be implemented with what impact on trade and competitiveness?
 - Which financial policies will be implemented nationally and internationally, with what implications for financial system perceptions, incentives and structure?

A Conducive International Framework for INDC Implementation

- INDCs based on i) national development strategy and interests; ii) collective action framework and objectives (2C).
 - ≠ Pricing as optimal abatement allocation internationally and nationally, with harmonized rules etc.
 - ☑ What contribution of carbon pricing to national development objectives?
 - e.g. what role of carbon pricing in transition to Chinese new normal, and vice versa?
- Pricing mechanisms, driven by development visions and domestic circumstances, will be quite heterogeneous:
 - Need to ensure dialogue and understanding, avoid competitiveness concerns
 - Need to strengthen work and understanding of link between development objectives and c. pricing (opportunity to link with others, IMF etc)

Conclusions

- INDCs represent a great step forward that must now be implemented and strengthened overall and in the right places:
 - What are their structural strengths and weaknesses, in aggregate and against transformation needed for national deep decarbonization?
- There is an immediate implementation agenda
 - We need to create dynamism and confidence in domestic implementation through action, dialogue and transparency
- The Paris Agreement leaves us with a big collective action agenda:
 - Ex. Carbon pricing linked to national development agenda
 - ensuring transparency and dialogue to overcome competitiveness concerns from heterogeneous approaches
 - Making analytical and political links between development and carbon pricing

IDDRI resources

<http://deepdecarbonization.org/>

<http://www.iddri.org/Publications/Beyond-the-numbers-Understanding-the-transformation-induced-by-INDCs>

<http://www.blog-iddri.org/2015/12/14/the-paris-agreement-historic-but-whats-next/>