

Exploring Trends, Challenges & Opportunities: Energy For Our Future Generations

Welcoming Remarks

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Green Council

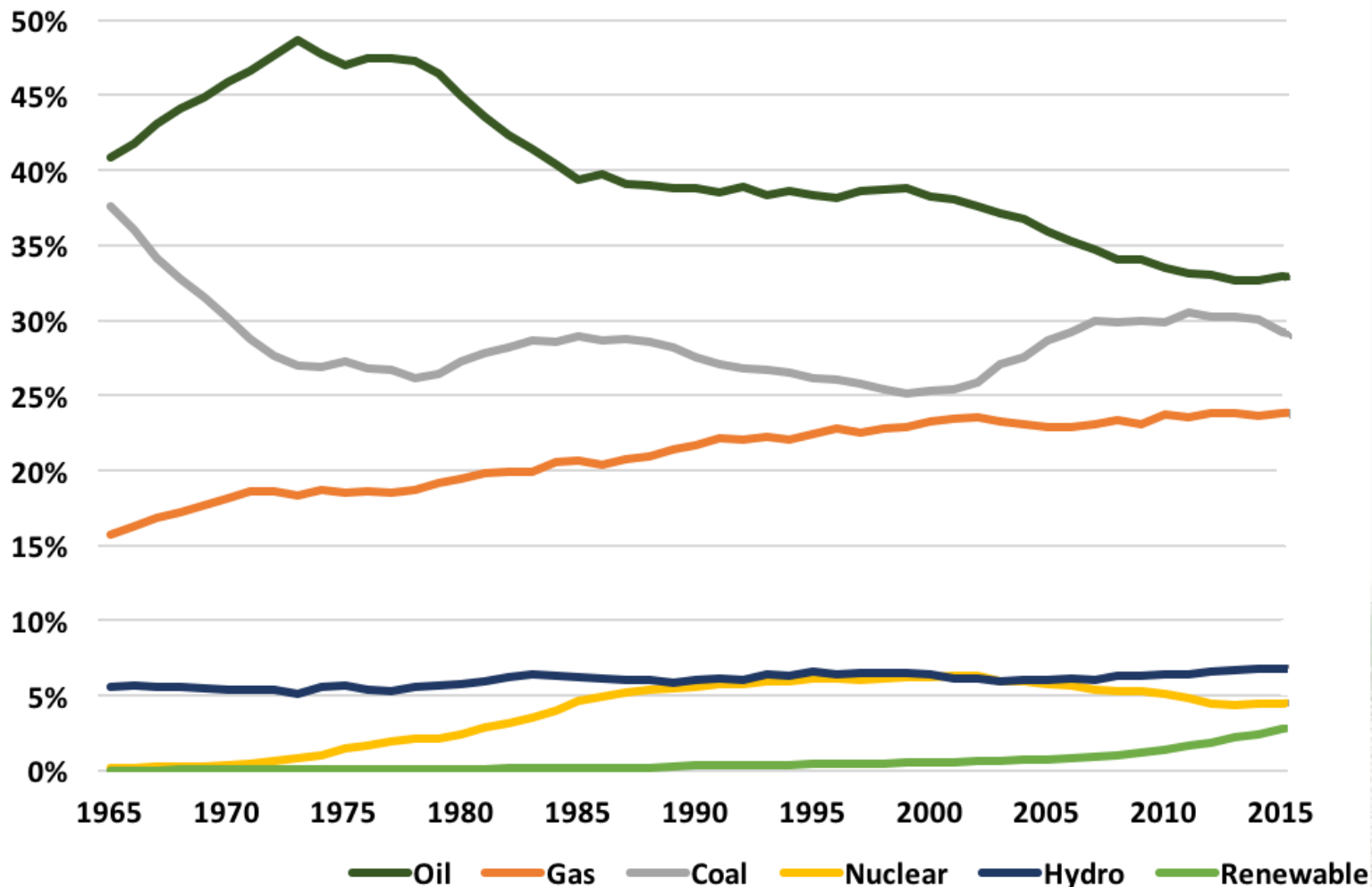


***Review Trends, Challenges and
Opportunities:
Energy of Our Past Generations***



Trend: Fossil Fuels > 85%

Shares of Primary Energy



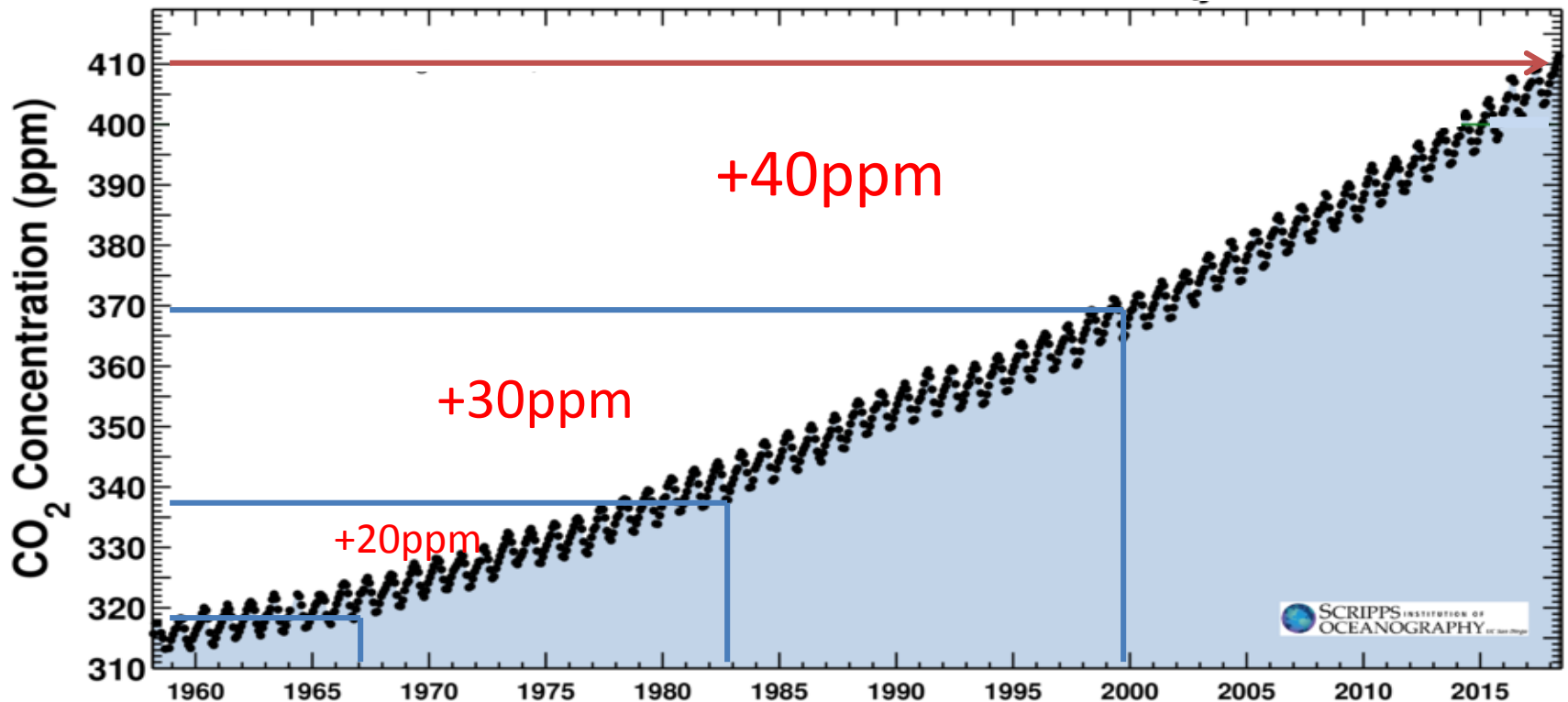
Source: BP Statistical Review 2016. BP Energy Outlook 2016

Trend: CO₂ concentration accelerating

Latest CO₂ reading
April 24, 2019

413.67 ppm

Carbon dioxide concentration at Mauna Loa Observatory



Challenge: fossil fuels still scarce?

Energy crisis has never come close since 1970s!

Proved Reserves	1997	2017	Change
Coal (Billion Ton)	1,106	1,035	-6.4%
Oil (Billion BBL)	1,162	1,697	+46%
Gas (Trillion Cubic Meters)	128	194	+52%

Source: BP's Statistical Review of World Energy 2018

Population (Billion)	5.91	7.55	+ 28%
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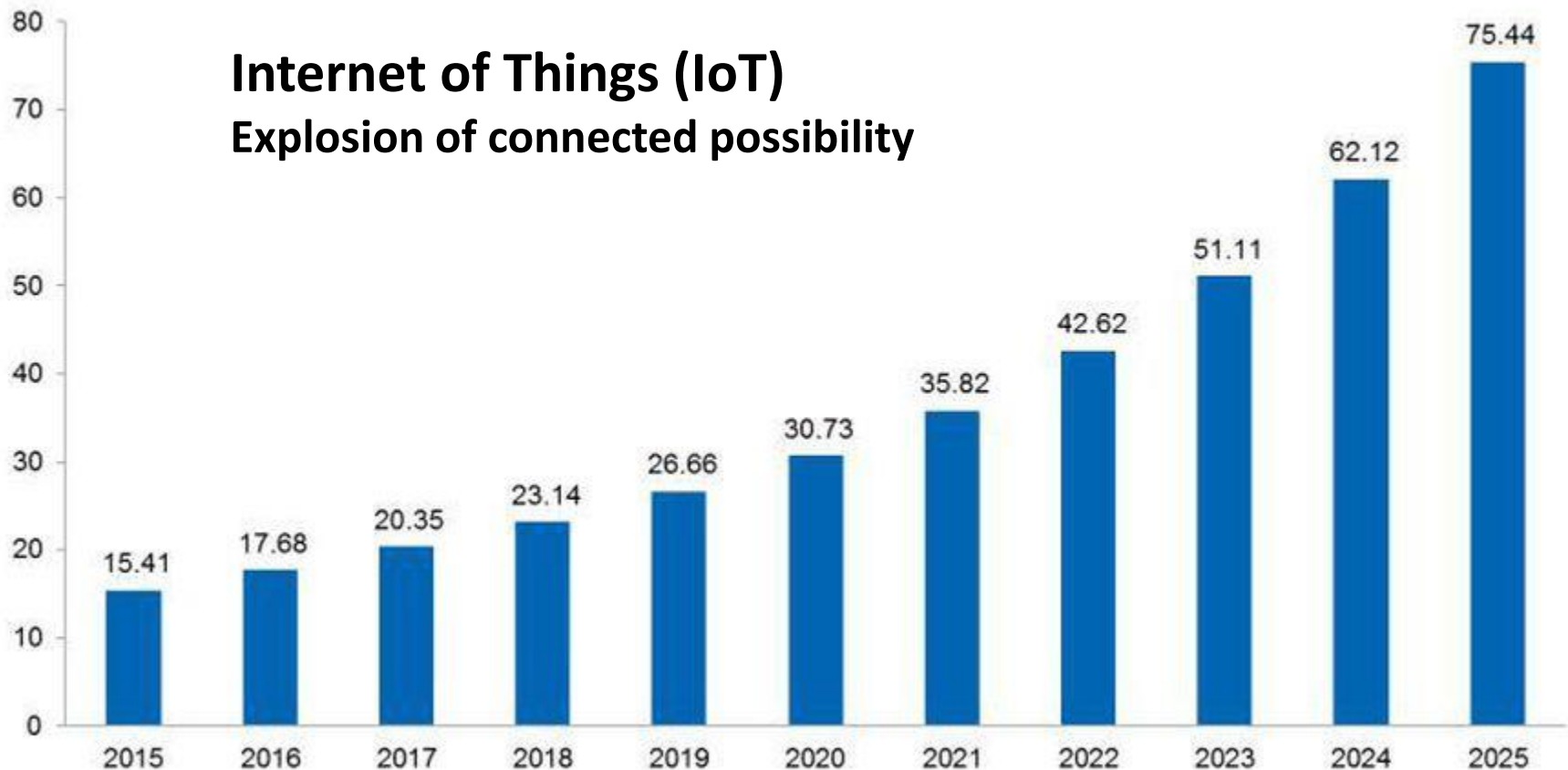
Challenge: innovation continue!

Manual	Machine	Machine	Machine
			
			
		<p>Clothes Drying</p> 	

Challenge & Opportunity: Internet of standby e-device

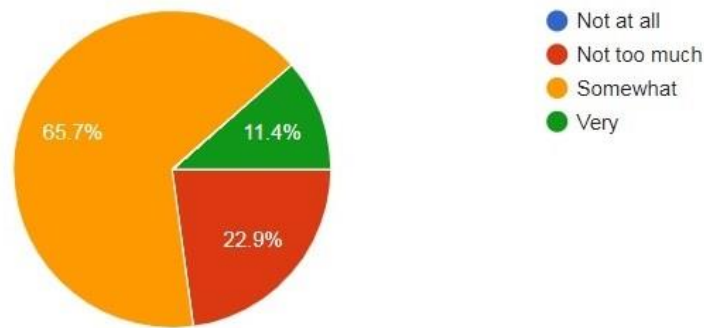
Figure 1. The IoT market will be massive

IoT installed base, global market, billions



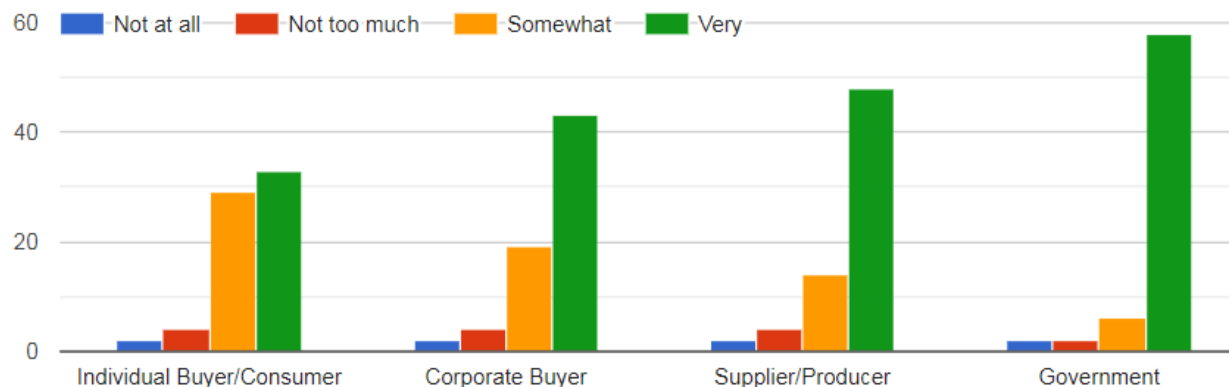
Opportunity & Challenge: People Awareness

2. Have you changed your behavior for mitigating climate change?



53% individuals very concerned about climate change, 11% fully changed behavior

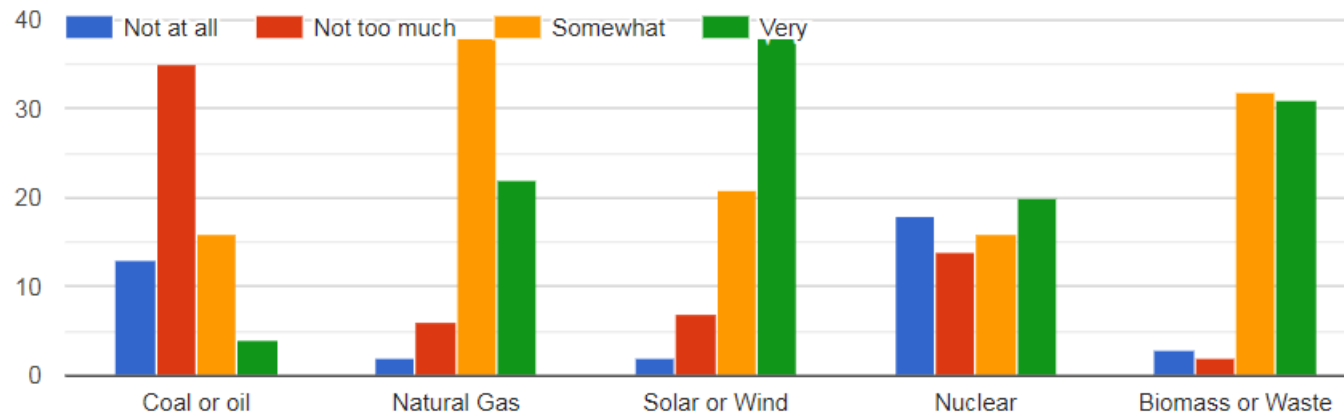
4. Who should be responsible for solving climate change problem?



Most Responsible
 1st: Government
 2nd: Supplier/Producer
 3rd: Corporate Buyer
 4th: Individual Buyer/Consumer

Opportunity: Clean Energy in HK

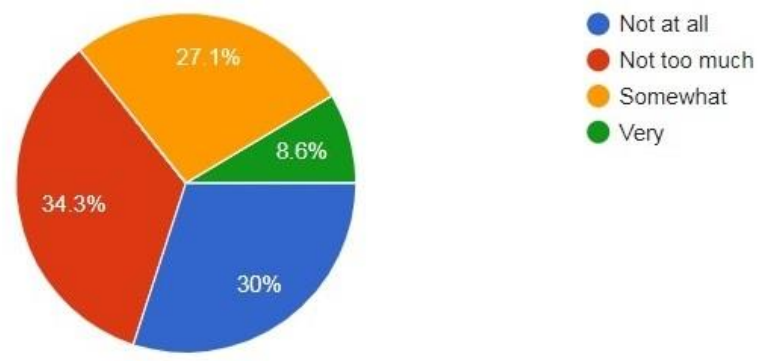
6. The fuel mix for electricity generation should consider cost, supply reliability, availability and sustainability. How would you consider the following sources of energy for Hong Kong?



Support: Natural Gas, Solar or Wind, Biomass or Waste
 Not so support: Coal or oil
 Almost indifferent: Nuclear

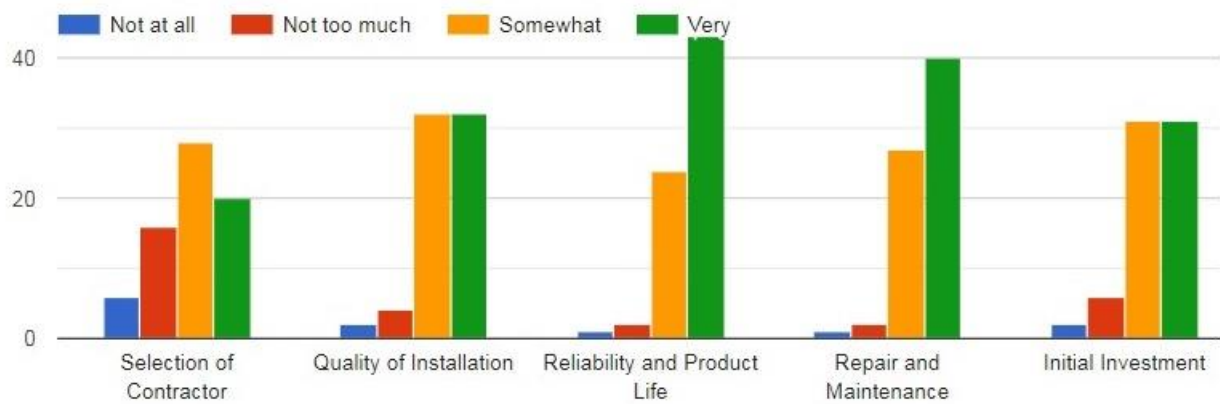
Challenge: Supply of Solar Energy in HK

8. Have you considered to install solar panel?



8.6% has highly considered

9. How would you consider the following barrier in investing solar panel?




Top 2 barriers:
1. Reliability & Product Life
2. Repair & Maintenance



Opportunity: Efficiency

ENERGY LABEL 能源標籤	
more efficient 效益較高	Class 1
1	2
3	4
5	
less efficient 效益較低	
Annual Energy Consumption (excluding lighting and fans) 每年耗電量 (不包括照明及風扇) 單位: kWh/m ² /year	420
Cooling Capacity (kW) (製冷量) (千瓦)	2.54
Refrigerant 製冷劑	R410A
Room Air Conditioner Brand 品牌: ABC Model 型號: XYZ Reference Number / Year Information Provider 參考編號 / 年份資料提供者: 123456789	ABC XYZ 123456789
機電工程署 EMSD	

《建築物能源效益條例》
於**2012年9月21日**起全面實施
The Buildings Energy Efficiency Ordinance
comes into full operation on **21 September 2012**



- 空調裝置
Air-conditioning installation
- 照明裝置
Lighting installation
- 升降機及自動梯裝置
Lift & escalator installation
- 電力裝置
Electrical installation



樓宇基金
BUILDING
FUND



與您共建更綠社區

- Building services installations should comply with the Building Energy Code.
- Owners of commercial buildings should undergo energy audits once every 10 years.
- For details, please visit EMSD's webpage: <http://www.emsd.gov.hk>



How about Trends, Challenges & Opportunities: Energy For Our Future Generations



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