## "Clean coal" has not helped Japan cut emissions 288.6 Mt CO2 300 6th SEP 2021 250 4th SEP 2014 "Reduce coal, promote "Coal as baseload" 'abatement'" Efficiency · Efficiency regulation 2nd SEP 2007 Gasification · Ammonia co-firing & mono-Emissions (Mt CO2) "Clean coal" · Replacing old coal plants with 200 firing Efficiency · CCS & CCUS new Gasification "Most advanced technology Gasification · Coal-to-H2 available" Coal-to-liquid · CCS 150 · CCS "Hyper coal" 5th SEP 2018 Toward "fadeout" of inefficient coal 100 3rd SEP 2010 · Efficiency regulation "Clean coal" & "Zero emission Gasification & gasification fuel cell coal power" 1st SEP 2003 · CCS & CCUS CCS "Clean coal" 50 · Coal-to-H2 Gasification Efficiency Efficiency (A-USC) Gasification · Biomass co-firing Coal-to-H2 · Replacing old coal plants with new 0 1996 1990 1992 1994 1998 2000 2002 2004 2006 2008 2010 2012 2014 2016 2018 2020 2022 Coal Source: E3G analysis of International Energy Agency (IEA) Natural gas Energy Statistics dataset (CO2 emissions from electricity Oil and heat) and Japan's Strategic Energy Plans 2003-2021. Other