



Maintenance Capital Update

December 28, 2023

In 2024, Northern Natural Gas plans to invest \$457 million in maintenance capital, as detailed in the attachment.

Prior versions of the attachment were published in compliance with settlement of Northern's rate case RP19-1353. An annual update is no longer required; however, Northern provides the update in response to customer inquiries regarding ongoing capital investment.

	Updated Capital Projection					Total
	2020	2021	2022	2023	2024	
Operations						
Pipeline Assessments	\$ 65,197	\$ 65,416	\$ 72,029	\$ 107,154	\$ 53,928	\$ 363,724
Compression Replacement	67,288	59,749	65,462	25,094	55,833	273,426
LNG Replacement	30	1,529	8,311	19,147	17,253	46,270
Underground Storage Integrity	2,548	-	11,167	769	728	15,212
Vintage Pipeline Replacement	108,855	162,822	143,282	80,778	11,959	507,696
MAOP Reconfirmation	-	-	97	15,161	69,152	84,410
Remote Control Valves	-	-	7	2,815	12,066	14,888
Total Asset Modernization	243,918	289,516	300,355	250,918	220,919	1,305,626
Building/Facility - Field	7,109	11,771	6,013	9,416	156	34,465
Pipeline Integrity	63,642	40,260	40,048	38,666	29,738	212,354
Pipeline-Shallow/Exposed Pipe Measurement	24,150	23,966	34,087	30,767	23,620	136,590
Automation/Controls	7,269	14,404	7,145	16,250	8,997	54,065
Pipeline - Relocation	8,511	20,668	17,804	20,271	19,029	86,283
Compressor Mods	4,062	1,165	(293)	245	248	5,427
Underground/LNG Storage	19,345	16,183	15,270	20,251	27,659	98,708
Measurement-Heaters	19,657	10,400	17,235	7,276	12,255	66,823
Valve Installation/Replacement	5,476	6,591	7,086	14,656	10,159	43,968
Corrosion Control	7,909	8,783	19,545	13,379	3,180	52,796
Odorization	24,273	9,073	7,466	23,488	12,699	76,999
Pipeline Safety Act HCA	2,285	1,301	1,878	5,956	7,491	18,911
Unit Exchange	11,897	15,462	17,274	10,154	8,454	63,241
Systems Development	2,887	1,858	3,879	1,381	3,441	13,446
Special Projects	2,516	4,600	5,418	11,461	12,604	36,599
Retirements	10,497	8,331	3,012	8,748	287	30,875
Risk-ESD	8,550	8,594	4,567	2,978	2,435	27,124
Trans/Mob Wrk Eqp	4,069	3,620	9,803	2,960	6,833	27,285
Information Technology	4,215	3,467	6,049	4,715	3,264	21,710
Other	9,516	7,985	7,206	10,117	19,400	54,224
Other Maintenance Capital	13,721	19,416	22,197	55,765	24,330	135,429
Total Maintenance Capital	\$ 505,474	\$ 527,414	\$ 553,044	\$ 559,818	\$ 457,198	\$ 2,602,948